

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 2-19-08
 Art Unit: 1795 Phone Number 302-1333 Serial Number: 101561, 760
 Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK RMOLD
(Rem)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR
 Sci & Tech Inf - Cntr

Title of Invention: Plz. See R-6. FEB 19 2008
 Inventors (please provide full names): _____ Pat. & T.M. Office

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Plz. Search for a resin or polymer ^{of Cl. #1} that
 contains the repeating unit of formula (I), (II)
 and (III) (do not worry about
 the formula
 (IV).



UNITED STATES PATENT AND TRADEMARK OFFICE

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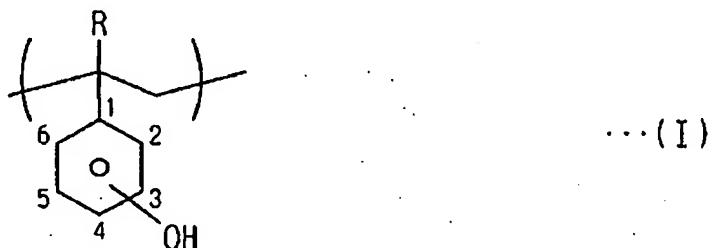
Bib Data Sheet

CONFIRMATION NO. 1637

SERIAL NUMBER 10/561,760	FILING OR 371(c) DATE 12/21/2005 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. SHIGA7.039APC	
APPLICANTS Hiroshi Shimbori, Kawasaki-shi, JAPAN; ** CONTINUING DATA ***** This application is a 371 of PCT/JP04/09875 07/05/2004 SJL ** FOREIGN APPLICATIONS ***** JAPAN 2003-193649 07/08/2003) SJL JAPAN 2003-193650 07/08/2003) IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 01/25/2007					
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after met Verified and <i>[Signature]</i> <i>[Signature]</i> Acknowledged <i>[Signature]</i> <i>[Signature]</i> Examiner's Signature Initials		STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 22	INDEPENDENT CLAIMS 2
ADDRESS 20995					
TITLE Resin for positive resist composition, and positive resist composition using the same, laminate and method for forming resist pattern					
FILING FEE RECEIVED 1000	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

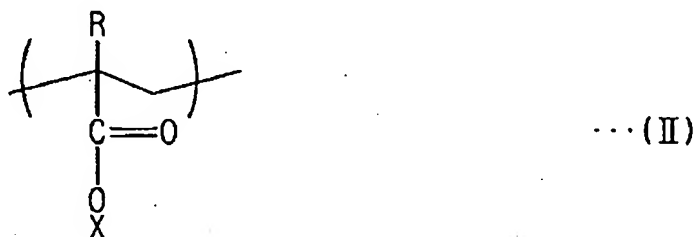
AMENDMENTS TO THE CLAIMS

1. (Currently amended) A positive resist composition comprising: a resin component (A) which comprises ~~A resin for a positive resist composition, comprising:~~
 a structural unit (a1) represented by a general formula (I) shown below:



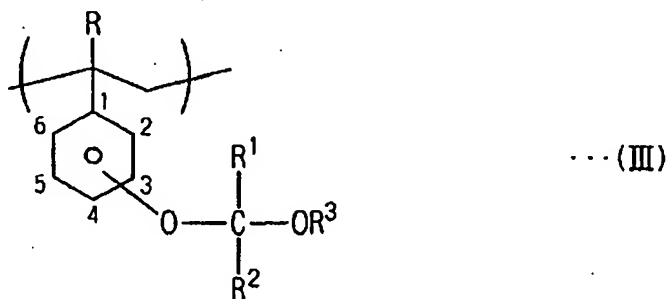
(wherein, R represents -H or -CH₃),

a structural unit (a2) represented by a general formula (II) shown below:



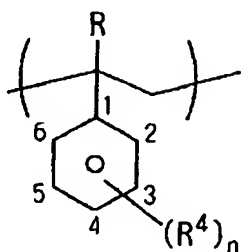
(wherein, R represents -H or -CH₃, and X represents an acid dissociable, dissolution inhibiting group, which is an alkyl group with a tertiary carbon atom in which said tertiary carbon atom is bonded to an ester group),

a structural unit (a3) represented by a general formula (III) shown below:



(wherein, R and R¹ each represent, independently, -H or -CH₃, R² represents -CH₃ or -C₂H₅, and R³ represents a lower alkyl group), and

a structural unit (a4) represented by a general formula (IV) shown below:



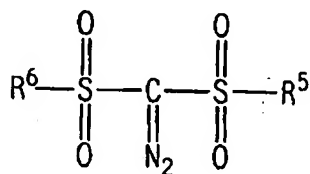
... (IV)

(wherein, R represents -H or -CH₃, R⁴ represents a lower alkyl group, and n represents either 0, or an integer from 1 to 3), and an acid generator (B) that generates acid upon exposure, wherein said component (B) comprises a diazomethane-based acid generator (B1) and an onium salt-based acid generator (B2), wherein the weight ratio of B1 to B2 is within a range from 1:1 to 10:1.

2. (Canceled)

3. (Canceled)

4. (Currently amended) A positive resist composition according to claim [[3]] 1, wherein said component (B1) comprises a compound represented by a general formula (V) shown below:



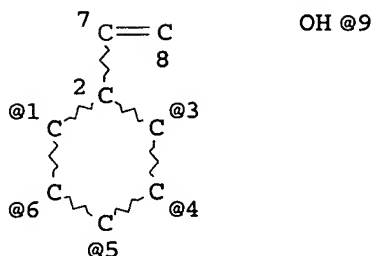
... (V)

(wherein, R⁵ and R⁶ each represent, independently, a straight-chain, branched, or cyclic alkyl group of 3 to 7 carbon atoms).

5. (Original) A positive resist composition according to claim 4, wherein said component (B2) comprises a compound represented by a general formula (VI) shown below:

=> d que
L3

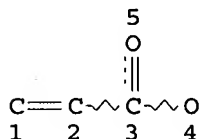
STR



VPA 9-3/4/5/6/1 U
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 9

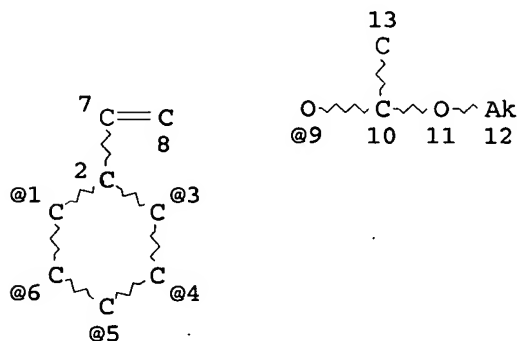
STEREO ATTRIBUTES: NONE
L5 STR



NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L11 STR



VPA 9-3/4/5/6/1 U
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CONNECT IS E1 RC AT 12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L13 234 SEA FILE=REGISTRY SSS FUL L3 AND L11

L16 77 SEA FILE=REGISTRY SUB=L13 SSS FUL L5

L17 78 SEA FILE=HCAPLUS ABB=ON PLU=ON L16

L18 62 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (1840-2004)/PRY,AY
,PY

=> d l18 1-62 ibib ed abs hitstr hitind

L18 ANSWER 1 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:896012 HCAPLUS

DOCUMENT NUMBER: 146:193795

TITLE: Photoresist polymer comprising specified repeating unit, photoresist composition using the same, method for forming photoresist pattern using photoresist composition

INVENTOR(S): Kim, Myoung Soo; Son, Min Seok

PATENT ASSIGNEE(S): Hynix Semiconductor Inc., S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7

DOCUMENT TYPE: Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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KR 2005039369	A	20050429	KR 2003-74811	20031024

PRIORITY APPLN. INFO.:

KR 2003-74811 20031024

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ED Entered STN: 03 Sep 2006

AB The invention relates to a photoresist polymer which has lower glass transition temperature, to control standing waves generated by diffused reflection during patterning, a photoresist composition comprising the same, a method for forming a photoresist pattern using the photoresist composition. The photoresist polymer comprises a repeating unit represented by the formula 1, wherein R1 and R2 are each hydrogen or CH3, R3 and R4 are each hydrogen, a C1-C20 alkyl, aryl or alicyclic group, R5 is a C2-C30 alkyl group, a relative ratio of k : l : m : n : o is 5-80 mol% : 5-80 mol% : 5-80 mol% : 0-80 mol% : 5-80 mol%. The photoresist polymer has a mol. weight of 1,000-100,000. The photoresist composition comprises such photoresist polymer, a photoacid generator and an organic solvent. The photoresist pattern is formed by applying such photoresist composition onto a layer to be etched so as to form a photoresist film; soft-baking the photoresist film; exposing the baked photoresist film; post-baking the exposed photoresist film; and developing the resultant to obtain a photoresist pattern.

IT 922505-63-3 922505-71-3

(polymeric photoresist composition for photolithog. fabrication of semiconductor integrated circuit)

RN 922505-63-3 HCAPLUS

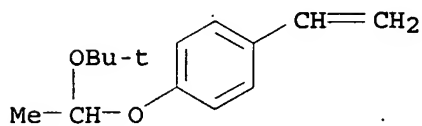
CN 2-Propenoic acid, dodecyl ester, polymer with 1-[1-(1,1-dimethylethoxy)ethoxy]-4-ethenylbenzene, ethenylbenzene and

4-ethenylphenol (CA INDEX NAME)

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CRN 169811-45-4

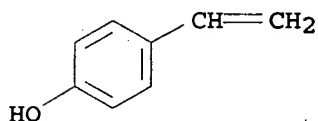
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CM 2

CRN 2628-17-3

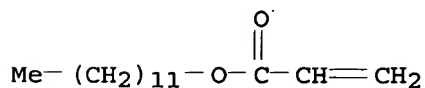
CMF C8 H8 O



CM 3

CRN 2156-97-0

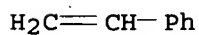
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CM 4

CRN 100-42-5

CMF C8 H8



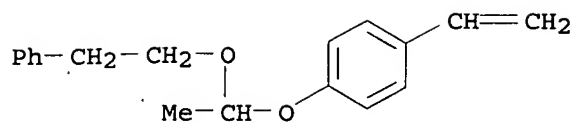
RN 922505-71-3 HCAPLUS

CN 2-Propenoic acid, hexadecyl ester, polymer with 1-[1-(1,1-dimethylethoxy)ethoxy]-4-ethenylbenzene, ethenylbenzene, 4-ethenylphenol and 1-ethenyl-4-[1-(2-phenylethoxy)ethoxy]benzene (CA INDEX NAME)

CM 1

CRN 246157-37-9

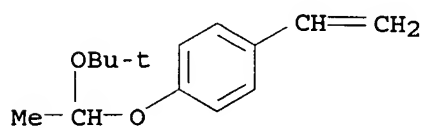
CMF C18 H20 O2



CM 2

CRN 169811-45-4

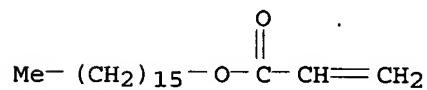
CMF C14 H20 O2



CM 3

CRN 13402-02-3

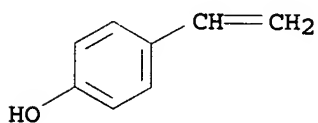
CMF C19 H36 O2



CM 4

CRN 2628-17-3

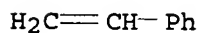
CMF C8 H8 O



CM 5

CRN 100-42-5

CMF C8 H8



IC ICM G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 73, 76

IT 922504-37-8 922504-42-5 922504-61-8 922505-63-3

922505-71-3

(polymeric photoresist composition for photolithog. fabrication of semiconductor integrated circuit)

L18 ANSWER 2 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:745631 HCAPLUS

DOCUMENT NUMBER: 145:302790

TITLE: Acetal group-containing hydroxystyrene-POSS methacrylate copolymer and positive photoresist composition containing the copolymer

INVENTOR(S): Eo, Dong Seon; Jang, Won Beom; Lee, Ga Yeong; Park, Hyeon Cheol

PATENT ASSIGNEE(S): Cheil Industries Inc., S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7

DOCUMENT TYPE: Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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KR 2004061564	A	20040707	KR 2002-87835	20021231

PRIORITY APPLN. INFO.:	KR 2002-87835	20021231
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ED Entered STN: 31 Jul 2006

AB The invention relates to an acetal group-containing hydroxystyrene-POSS methacrylate copolymer and a pos. photoresist composition containing the copolymer, which improves resistance against dry etching, high temperature stability and line edge roughness and to inhibit the collapse of pattern. The acetal group-containing hydroxystyrene/POSS-methacrylate copolymer is obtained by copolymerizing 100 parts by weight of an acetoxystyrene monomer and 48-96 parts by weight of a POSS-methacrylate monomer represented by the formula 1 with a 1,1-azobiscyclohexanecarbonitrile initiator and hydrolyzing it to prepare a hydroxystyrene/POSS-methacrylate copolymer, and reacting the copolymer with 10-20 parts by weight of a vinyl ether represented by $C=C-O-R'$, and is represented by the formula 3, wherein R is an iso-Bu, cyclopentyl, isooctyl, t-Bu, cyclohexyl, disilanolcyclopentyl, disilanolisobutyl, disilanol cyclohexyl, Et, fluoro(3)cyclohexyl, fluoro(13)cyclopentyl, pentyl, tri-Me siloxy cyclopentyl or tri-Me siloxy iso-Bu group; R' is a linear, branched or cyclic alkyl group of C1-C10, a linear or branched haloalkyl group of C1-C6, an acetal group or an aralkyl group; $x'/(x'+x''+y) = 0.6-0.9$; $x''/(x'+x''+y) = 0.05-0.2$; and $y/(x'+x''+y) = 0.05-0.2$.

IT 908021-59-0

(acetal group-containing hydroxystyrene-POSS methacrylate copolymer pos. photoresist composition for semiconductor integrated circuit fabrication)

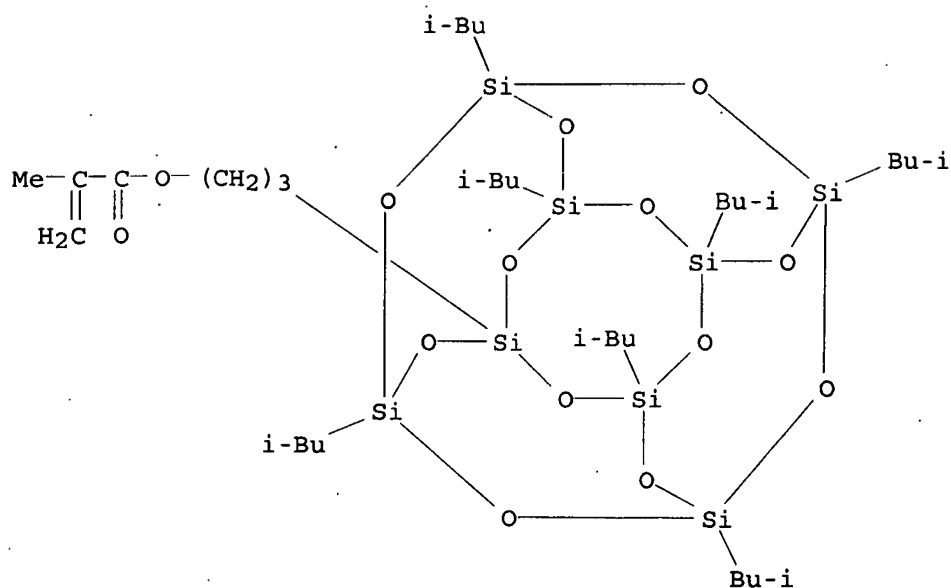
RN 908021-59-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[heptakis(2-methylpropyl)pentacyclo[9.5.1.13,9.15,15.17,13]octasiloxanyl]propyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM .1

CRN 307531-94-8

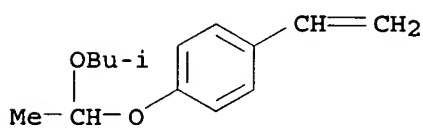
CMF C35 H74 O14 Si8



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CRN 192314-53-7

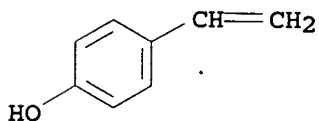
CMF C14 H20 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-075

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

IT 509106-74-5 908021-59-0

(acetal group-containing hydroxystyrene-POSS methacrylate copolymer
pos. photoresist composition for semiconductor integrated circuit
fabrication)

L18 ANSWER 3 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:632893 HCAPLUS

DOCUMENT NUMBER: 145:92982

TITLE: Electron-beam or extreme-UV resist compositions and their patterning for photomask fabrication

INVENTOR(S): Ando, Tomoyuki

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006171440	A	20060629	JP 2004-364568	20041216

PRIORITY APPLN. INFO.:

JP 2004-364568 20041216

ED Entered STN: 30 Jun 2006

AB The compns. comprise (A) resins having alkali-soluble units (a1) and units containing acid-labile dissoln.-inhibiting groups (a2), (B) photoacid generators, and (C) phenol compds. having Mw 250-1000 and free from acid-labile dissoln.-inhibiting groups, where unit a2 contain (α -methyl)hydroxystyrene-derived units and unit a2 contain CR1R2OX (X = alicyclic group, aromatic group, C1-5 alkyl; R1 = C1-5 alkyl; R2 = C1-5 alkyl, H), linear tert-alkyl(oxycarbonyl), and/or linear alkoxy carbonylalkyl. The compns. show high sensitivity and resolution and form patterns without development defects.

IT 676145-39-4 889849-57-4

(electron-beam or EUV resists containing resins with dissoln.-controlling groups and phenol derivs. and forming defect-free patterns)

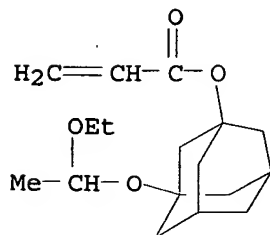
RN 676145-39-4 HCAPLUS

CN 2-Propenoic acid, 3-(1-ethoxyethoxy)tricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate (CA INDEX NAME)

CM 1

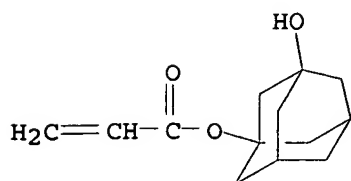
CRN 676145-38-3

CMF C17 H26 O4



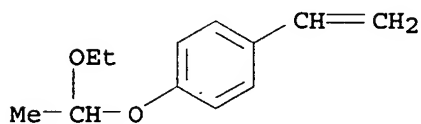
CM 2

CRN 216581-76-9
CMF C13 H18 O3



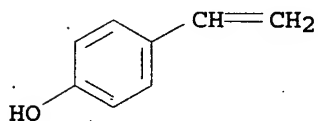
CM 3

CRN 157057-20-0
CMF C12 H16 O2



CM 4

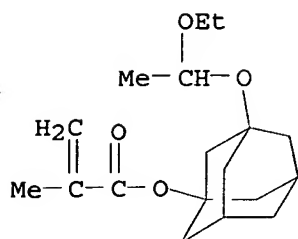
CRN 2628-17-3
CMF C8 H8 O



RN 889849-57-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(1-ethoxyethoxy)tricyclo[3.3.1.1.3,7]dec-1-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and 3-hydroxytricyclo[3.3.1.1.3,7]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

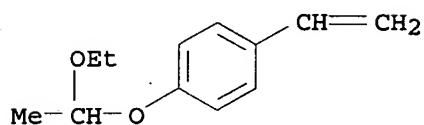
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CM 2

CRN 157057-20-0

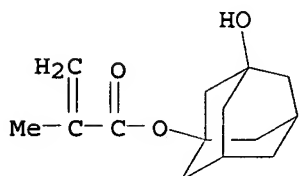
CMF C12 H16 O2



CM 3

CRN 115372-36-6

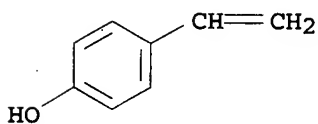
CMF C14 H20 O3



CM 4

CRN 2628-17-3

CMF C8 H8 O



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 129674-22-2 676145-39-4 850464-83-4 889849-57-4
889849-58-5

(electron-beam or EUV resists containing resins with

dissoln.-controlling groups and phenol derivs. and forming defect-free patterns)

L18 ANSWER 4 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:538705 HCAPLUS
DOCUMENT NUMBER: 145:53313
TITLE: Positive resist composition and method of forming resist pattern
INVENTOR(S): Ando, Tomoyuki; Hirosaki, Takako
PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006059569	A1	20060608	WO 2005-JP21803	20051128

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

JP 2006162796	A	20060622	JP 2004-351700	20041203
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JP 2006162797	A	20060622	JP 2004-351702	20041203
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JP 2006171439	A	20060629	JP 2004-364567	20041216
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DE 112005002819	T5	20070913	DE 2005-112005002819	20051128
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KR 2007085394	A	20070827	KR 2007-711254	20070517
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PRIORITY APPLN. INFO.:

JP 2004-351700	A	20041203
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JP 2004-351702	A	20041203
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JP 2004-364567	A	20041216
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WO 2005-JP21803	W	20051128
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ED. Entered STN: 08 Jun 2006

AB A pos. resist composition having excellent dimensional controllability. The pos. resist composition comprises: a resin ingredient comprising alkali-soluble structural units comprising structural units derived from (α -methyl)hydroxystyrene and structural units having acid-dissociable dissoln.-inhibitive groups comprising an acid-dissociable dissoln.-inhibitive group represented by -C(R1)(R2)OX [X = aliphatic cyclyl, aromatic cyclic hydrocarbyl, C1-5-alkyl, C1-5-alkylene; R1 = C1-5-alkyl, C1-5-alkylene; R2 = C1-5-alkyl, H]

and/or a specific chain acid-dissociable dissoln.-inhibitive group;
and an acid generator ingredient which generates an acid upon exposure
to light. It preferably further contains an aromatic amine.

IT 676145-39-4 889849-57-4

(pos. resist composition and method of forming resist pattern)

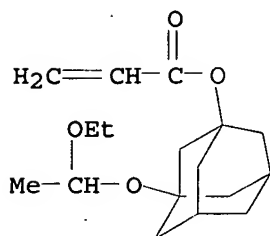
RN 676145-39-4 HCAPLUS

CN 2-Propenoic acid, 3-(1-ethoxyethoxy)tricyclo[3.3.1.1^{3,7}]dec-1-yl
ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene,
4-ethenylphenol and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate
(CA INDEX NAME)

CM 1

CRN 676145-38-3

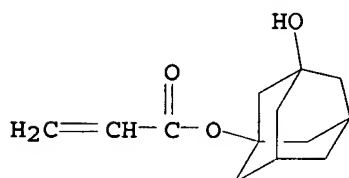
CMF C17 H26 O4



CM 2

CRN 216581-76-9

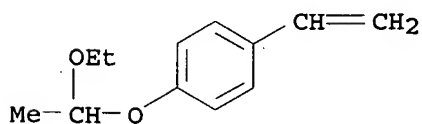
CMF C13 H18 O3



CM 3

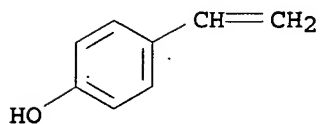
CRN 157057-20-0

CMF C12 H16 O2



CM 4

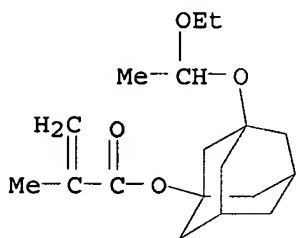
CRN 2628-17-3
CMF C8 H8 O



RN 889849-57-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(1-ethoxyethoxy)tricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

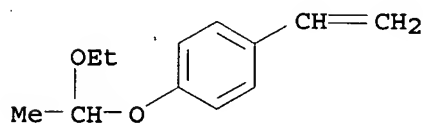
CM 1

CRN 882688-65-5
CMF C18 H28 O4



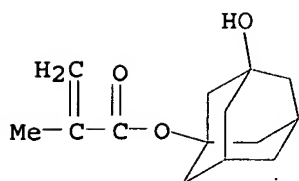
CM 2

CRN 157057-20-0
CMF C12 H16 O2



CM 3

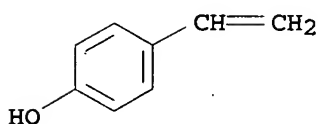
CRN 115372-36-6
CMF C14 H20 O3



CM 4

CRN 2628-17-3

CMF C8 H8 O



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT 129674-22-2 676145-39-4 850464-83-4 889849-57-4
889849-58-5

(pos. resist composition and method of forming resist pattern)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 5 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:322198 HCAPLUS

DOCUMENT NUMBER: 144:379095

TITLE: Positive-working resist composition showing improved sensitivity, resolution, line-edge roughness, and exposure latitude, and its application for patterning to fabricate semiconductor devices

INVENTOR(S): Sasaki, Tomoya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

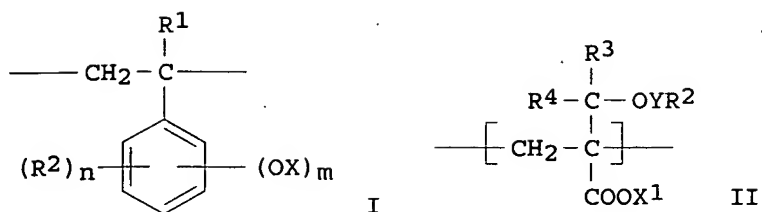
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2006091677	A	20060406	JP 2004-279490	20040927
			<--	
PRIORITY APPLN. INFO.:			JP 2004-279490	20040927
			<--	

ED Entered STN: 07 Apr 2006
GI



AB The title resist composition comprises a resin having structural repeating units of I (R¹ = H, Me, cyano, halo, perfluoro; R² = group incapable of decomposing upon acid action; X = H, organic group; m = 1-4; n = 1-4; n+m = 2-5) and II (R² = H, hydrocarbyl; Y = single bond, carbonyl; R³, R⁴ = H, alkyl, cycloalkyl, aryl, aralkyl; X¹ = H, organic group), and a photo- or radiation-acid generator. The resist composition may further contain an organic base compound and a surfactant.

IT 882029-59-6DP, hydrolyzed
(pos.-working resist composition showing improved sensitivity, resolution, line-edge roughness, and exposure latitude, and its application for patterning to fabricate semiconductor devices)

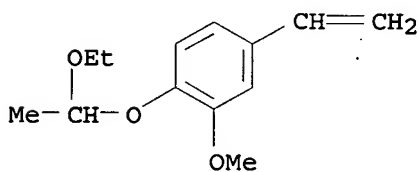
RN 882029-59-6 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-, 1,1-dimethylethyl ester, polymer with 4-ethenyl-1-(1-ethoxyethoxy)-2-methoxybenzene and 4-ethenyl-2-methoxyphenol (9CI) (CA INDEX NAME)

CM 1

CRN 863223-83-0

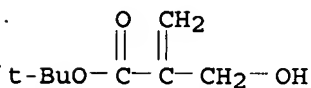
CMF C13 H18 O3



CM 2

CRN 121065-74-5

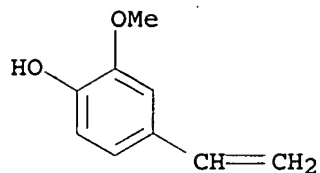
CMF C8 H14 O3



CM 3

CRN 7786-61-0

CMF C9 H10 O2



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38, 76
 IT 18370-86-0DP, 2-Phenoxyethyl vinyl ether, reaction products with hydroxy styrene copolymer 882029-59-6DP, hydrolyzed 882029-76-7DP, hydrolyzed and reaction products with 2-phenoxyethyl vinyl ether
 (pos.-working resist composition showing improved sensitivity, resolution, line-edge roughness, and exposure latitude, and its application for patterning to fabricate semiconductor devices)

L18 ANSWER 6 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:229676 HCAPLUS

DOCUMENT NUMBER: 144:302021

TITLE: Photosensitive composition, compound for pattern-forming method

INVENTOR(S): Wada, Kenji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 77 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1635218	A2	20060315	EP 2005-19883	20050913
EP 1635218	A3	20070321		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2006084530	A	20060330	JP 2004-266722	20040914

PRIORITY APPLN. INFO.: JP 2004-266722 A 20040914

OTHER SOURCE(S): MARPAT 144:302021

ED Entered STN: 15 Mar 2006

AB The present invention relates to a photosensitive composition containing a compound generating an organic acid having a specific structure, a compound for use in the photosensitive composition, and a pattern-forming method using the photosensitive composition

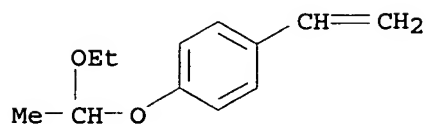
IT 325143-38-2 879182-53-3
 (resin; photosensitive composition, compound for pattern-forming method containing)

RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

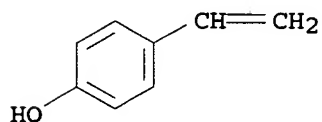
CM 1

CRN 157057-20-0
CMF C12 H16 O2



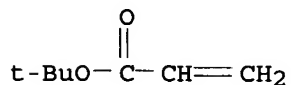
CM 2

CRN 2628-17-3
CMF C8 H8 O



CM 3

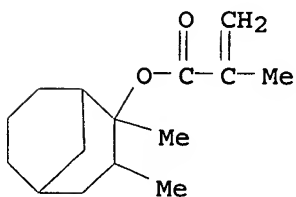
CRN 1663-39-4
CMF C7 H12 O2



RN 879182-53-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2,3-dimethylbicyclo[3.3.1]non-2-yl ester,
polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol
(9CI) (CA INDEX NAME)

CM 1

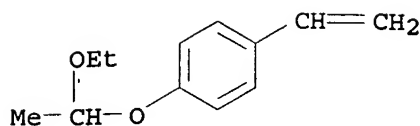
CRN 879182-52-2
CMF C15 H24 O2



CM 2

CRN 157057-20-0

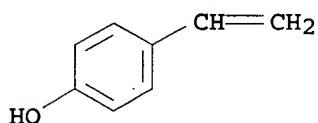
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 24979-69-9 24979-70-2 185405-14-5 196709-91-8 249743-11-1
 250378-10-0 288620-13-3 289623-64-9 321164-59-4
 325143-38-2 345212-27-3 359635-35-1 366808-82-4
 370866-39-0 398140-43-7 459418-30-5 482609-97-2 524699-47-6
 607357-61-9 607710-65-6 607710-68-9 610300-93-1 610300-94-2
 610300-95-3 610301-49-0 615278-35-8 677351-20-1 677351-26-7
 848408-51-5 848408-52-6 879181-78-9 879182-17-9
 879182-53-3

(resin; photosensitive composition, compound for pattern-forming method containing)

L18 ANSWER 7 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:195855 HCAPLUS

DOCUMENT NUMBER: 144:283224

TITLE: Positive resist composition and pattern forming method using the same

INVENTOR(S): Sasaki, Tomoya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 33 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006046195	A1	20060302	US 2005-217422	20050902
			<--	
JP 2006099097	A	20060413	JP 2005-253706	20050901
			<--	
EP 1637927	A1	20060322	EP 2005-19133	20050902
			<--	

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,

PL, SK, BA, HR, IS, YU

PRIORITY APPLN. INFO.:

JP 2004-255473

A 20040902

<--

ED Entered STN: 03 Mar 2006

AB A pos. resist composition satisfying high sensitivity, high resolution and good line edge roughness at the same time, and a pattern forming method using the resist composition are provided, which are a pos. resist composition comprising (A) a resin which becomes soluble in alkali developer increases under the action of an acid, the resin having two kinds of repeating units each having a specific styrene skeleton, (B) a compound of generating an acid upon irradiation with actinic rays or radiation, and (C) an organic basic compound, and a pattern forming method using the resist composition

IT 878004-45-6

(pos. resist composition and pattern forming method containing)

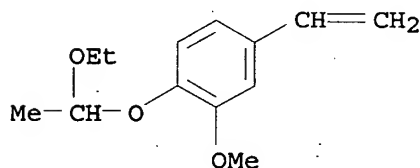
RN 878004-45-6 HCAPLUS

CN 2-Propenoic acid, 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenyl-1-(1-ethoxyethoxy)-2-methoxybenzene, 4-ethenyl-2-methoxyphenol and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 863223-83-0

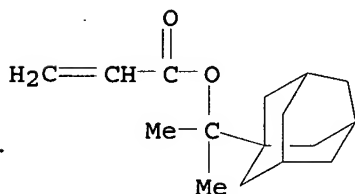
CMF C13 H18 O3



CM 2

CRN 300833-10-7

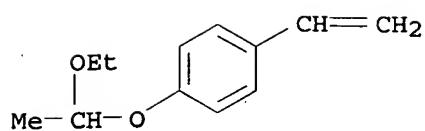
CMF C16 H24 O2



CM 3

CRN 157057-20-0

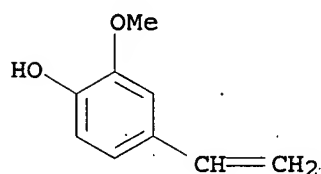
CMF C12 H16 O2



CM 4

CRN 7786-61-0

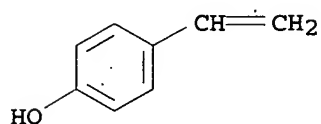
CMF C9 H10 O2



CM 5

CRN 2628-17-3

CMF C8 H8 O



INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT	754191-41-8	878004-27-4	878004-29-6	878004-31-0	878004-32-1
	878004-33-2	878004-34-3	878004-36-5	878004-38-7	878004-40-1
	878004-41-2	878004-42-3	878004-43-4	878004-44-5	
	878004-45-6	878004-46-7	878004-47-8	878004-48-9	
	878004-49-0	878004-50-3	878004-51-4	878004-52-5	878004-53-6
	878004-54-7	878004-55-8	878004-56-9	878004-58-1	

(pos. resist composition and pattern forming method containing)

L18 ANSWER 8 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:49078 HCAPLUS

DOCUMENT NUMBER: 144:138935

TITLE: Copolymers and their manufacture for positive photoresists giving high-resolution fine patterns

INVENTOR(S): Sato, Kazushi; Yoshizawa, Sachiko; Hane, Yukiko

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan; Maruzen Oil Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006016490	A	20060119	JP 2004-195674	20040701

PRIORITY APPLN. INFO.:			JP 2004-195674	20040701
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ED Entered STN: 19 Jan 2006

AB The method contains reacting copolymers bearing units CPhRCH₂ (R = H, Me) and units CR(C:OOX)CH₂ (R = H, Me; X = lactone-containing mono- or polycyclic group) with alkyl vinyl ethers in the presence of acid catalysts, thus improving resist pattern characteristics (rectangular profile, LER, DOF, and/or EL margin).

IT 873201-68-4P

(manufacture of acetalized phenolic copolymers for pos. photoresists giving high-resolution fine patterns)

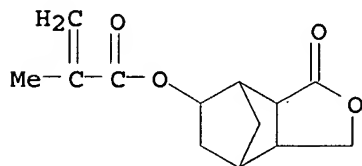
RN 873201-68-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, octahydro-3-oxo-4,7-methanoisobenzofuran-5-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 473000-21-4

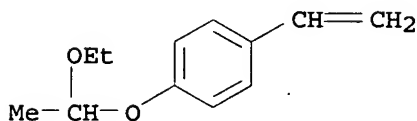
CMF C13 H16 O4



CM 2

CRN 157057-20-0

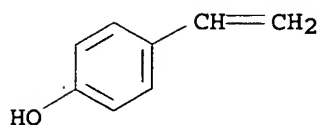
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 873201-68-4P
 (manufacture of acetalized phenolic copolymers for pos. photoresists giving high-resolution fine patterns)

L18 ANSWER 9 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:30412 HCAPLUS

DOCUMENT NUMBER: 144:138920

TITLE: Positive-working photoresist composition and method for resist pattern formation

INVENTOR(S): Sato, Kazufumi; Yoshizawa, Sachiko

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006003810	A1	20060112	WO 2005-JP11334	20050621

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

JP 2006018016	A	20060119	JP 2004-195672	20040701
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PRIORITY APPLN. INFO.:

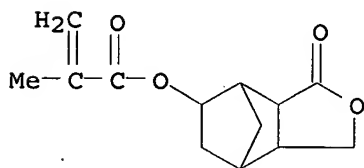
JP 2004-195672	A	20040701
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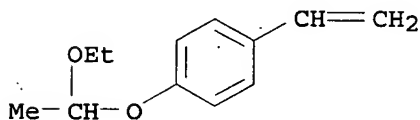
ED Entered STN: 12 Jan 2006

AB This invention provides a pos.-metalworking resist composition, which has a high level of resolution and, at the same time, can improve at least one of rectangular profile, LER, DOF, and EL margin of a resist pattern, and a method for resist pattern formation. The pos.-metalworking resist composition comprises a resin component (A), which can undergo an increase in alkali solubility through the action of an acid, and an acid generating agent component (B) which generates an acid upon exposure to light. The resin component (A) comprises a copolymer (A1) comprising constitutional units (a1) containing a phenolic hydroxyl group, constitutional units (a2) containing a lactone-containing monocyclic or polycyclic group, and constitutional units (a3) containing an

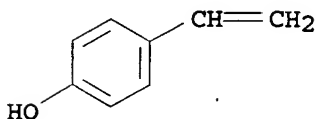
acid-dissociative dissoln. inhibiting group.
 IT 873201-68-4DP, reaction product with ethylvinyl ether
 (resin; pos.-working resist composition and method for resist pattern
 formation)
 RN 873201-68-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, octahydro-3-oxo-4,7-methanoisobenzofuran-
 5-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and
 4-ethenylphenol (9CI) (CA INDEX NAME)
 CM 1
 CRN 473000-21-4
 CMF C13 H16 O4



CM 2
 CRN 157057-20-0
 CMF C12 H16 O2



CM 3
 CRN 2628-17-3
 CMF C8H8 O



IC ICM G03F007-039
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 35
 IT 109-92-2DP, Ethylvinyl ether, reaction product with hydroxystyrene
 copolymer 873201-68-4DP, reaction product with ethylvinyl
 ether
 (resin; pos.-working resist composition and method for resist pattern
 formation)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L18 ANSWER 10 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:1155388 HCAPLUS
 DOCUMENT NUMBER: 143:413517
 TITLE: Photosensitive composition, compound used in the same, and patterning method using the same
 INVENTOR(S): Kodama, Kunihiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 69 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005238992	A1	20051027	US 2005-108798	20050419
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US 7323286	B2	20080129		
JP 2005308969	A	20051104	JP 2004-124124	20040420
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EP 1591832	A2	20051102	EP 2005-8617	20050420
			<--	
EP 1591832	A3	20051116		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,				
PL, SK, BA, HR, IS, YU				
KR 2006047247	A	20060518	KR 2005-32609	20050420
			<--	
PRIORITY APPLN. INFO.:			JP 2004-124124	A 20040420
			<--	

OTHER SOURCE(S): MARPAT 143:413517

ED Entered STN: 28 Oct 2005

AB A photosensitive composition comprises a sulfonium salt (Y1Y2Y3S+)nX-n [Y1, Y2, Y3 = N-containing heteroaryl group, alkyl group, cycloalkyl group, aryl group, an alkenyl group; ≥1 of Y1, Y2, Y3 represents a N-containing heteroaryl group, and at least 2 of Y1, Y2, Y3 may combine with each other to form a ring; Xn- = n-valent nonnucleophilic anion; and n = 1-3]. The composition has excellent image-forming ability and can be used in immersion exposure.

IT 325143-38-2
 (photosensitive composition, compound used in same, and patterning method using same)

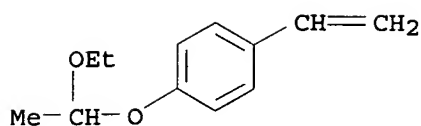
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

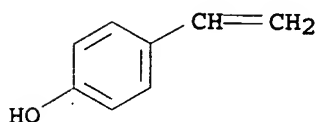
CMF C12 H16 O2



CM 2

CRN 2628-17-3

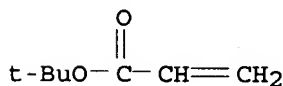
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03C001-492

INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT	24979-69-9	24979-70-2	129674-22-2	158593-28-3	177034-75-2
	185405-14-5	200808-68-0	249743-11-1	250378-10-0	288620-13-3
	289623-64-9	312620-54-5	321164-59-4	325143-37-1	
	325143-38-2	345212-27-3	359635-35-1	366808-82-4	
	372968-15-5	391232-36-3	398140-43-7	482609-97-2	524699-47-6
	610300-92-0	610300-93-1	610300-94-2	610300-96-4	610301-50-3
	615278-35-8	845795-93-9	848408-51-5	848408-52-6	862261-72-1
	867373-45-3	867373-46-4	867373-47-5	867373-48-6	

(photosensitive composition, compound used in same, and patterning method using same)

L18 ANSWER 11 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1074745 HCAPLUS

DOCUMENT NUMBER: 143:376428

TITLE: EUV-sensitive positive-working photoresist composition and method for pattern formation using the same

INVENTOR(S): Sasaki, Tomoya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005275282	A	20051006	JP 2004-92090	20040326

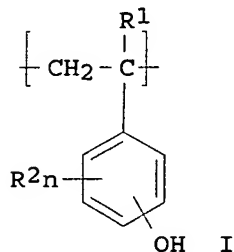
PRIORITY APPLN. INFO.:

JP 2004-92090

20040326

ED Entered STN: 07 Oct 2005

GI



AB The title composition contains an acid-sensitive alkali-solubilizable resin, a photoacid generator, and non-ionic N-containing base, wherein the resin has repeating unit I (R1 = H, Me, cyano, etc.; R2 = acid insensitive group; n = integer 0-4) and [-C(R3)(R4)-C(R5)(CO2-X1)] (R3-5 = H, F, Cl, cyano alkyl, etc.; X1 = H, orgs.). The composition provides high contrast images without generating gas during the development.

IT 387382-49-2P

(EUV-sensitive pos. working photoresist composition and method for pattern formation using the same)

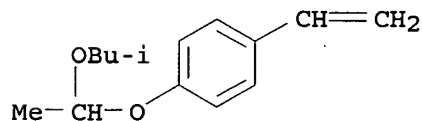
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 192314-53-7

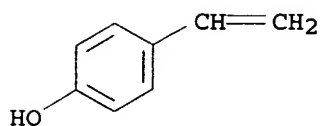
CMF C14 H20 O2



CM 2

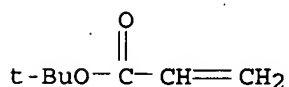
CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 1663-39-4
CMF C7 H12 O2



IC ICM G03F007-039
ICS C08F212-14; G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
IT 18370-86-ODP, 2-Phenoxyethyl vinyl ether, reaction product with hydroxystyrene copolymer 155040-27-OP 159296-87-4P 178889-54-8P
186585-53-5P 258871-96-4P 301153-46-8P 333758-18-2P
345349-50-OP 387382-49-2P 848352-68-1P 848352-73-8P
848352-74-9P 848352-75-OP 848352-79-4P 848352-80-7P
848352-82-9P 848352-84-1P 848352-86-3P 849348-32-9P
849348-35-2P 849348-43-2P 849348-46-5P 849348-51-2P
866034-99-3P 866035-00-9P 866035-02-1P 866035-03-2P
866035-04-3P 866035-05-4P 866035-07-6P 866035-08-7P
866035-09-8P 866035-10-1P 866035-11-2P 866035-12-3P
866035-13-4P 866035-14-5DP, reaction product with 2-phenoxyethyl vinyl ether 866331-89-7P
(EUV-sensitive pos. working photoresist composition and method for pattern formation using the same)

L18 ANSWER 12 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1070618 HCAPLUS

DOCUMENT NUMBER: 143:376418

TITLE: Positive-working resist composition for electron beam, EUV or x-ray and pattern method using the same

INVENTOR(S): Mizutani, Kazuyoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005275041	A	20051006	JP 2004-88891	20040325
			<--	
PRIORITY APPLN. INFO.:			JP 2004-88891	20040325
			<--	

ED Entered STN: 06 Oct 2005

AB Disclosed is a pos.-working resist composition comprising (a) an acid generating compound and (b) a resin capable of increasing its solubility in an alkali developer upon an interaction with an acid, wherein the composition contains the acid generating compound 6-20% and the resin has an acrylic repeating unit having a fluorinated alkyl group.

IT 866260-09-5 866260-12-0

(pos.-working resist composition containing fluorinated acrylic polymer for electron beam, EUV or x-ray lithog.)

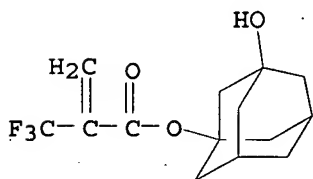
RN 866260-09-5 HCAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 521913-15-5

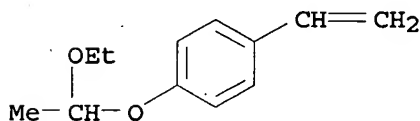
CMF C14 H17 F3 O3



CM 2

CRN 157057-20-0

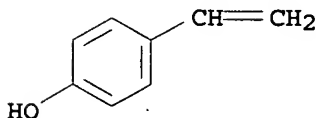
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



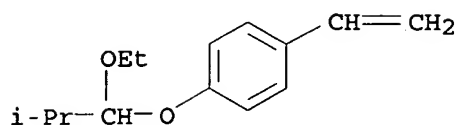
RN 866260-12-0 HCAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with 1-ethenyl-4-(1-ethoxy-2-methylpropoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 805240-50-0

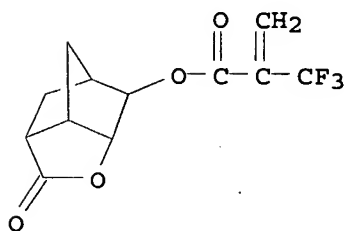
CMF C14 H20 O2



CM 2

CRN 479084-29-2

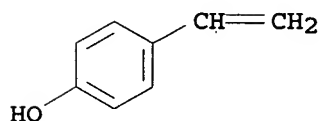
CMF C12 H11 F3 O4



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-039

ICS G03F007-033; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 866260-05-1 866260-06-2 866260-07-3 866260-08-4

866260-09-5 866260-10-8 866260-11-9 866260-12-0

866260-13-1 866260-14-2 866260-15-3.

(pos.-working resist composition containing fluorinated acrylic polymer for electron beam, EUV or x-ray lithog.)

L18 ANSWER 13 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1070613 HCAPLUS

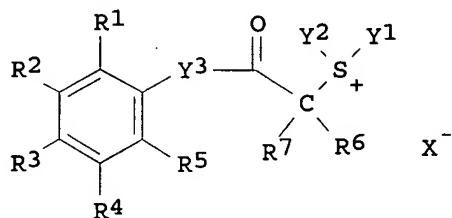
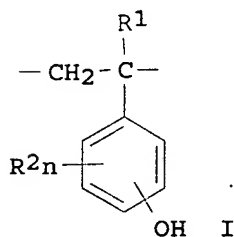
DOCUMENT NUMBER: 143:356619

TITLE: EUV-sensitive positive-working resist composition and pattern formation method using the same

INVENTOR(S): Sasaki, Tomoya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005274877	A	20051006	JP 2004-86839	20040324
			<--	
PRIORITY APPLN. INFO.:			JP 2004-86839	20040324
			<--	
OTHER SOURCE(S):	MARPAT 143:356619			
ED	Entered STN: 06 Oct 2005			
GI				



AB The composition contains acid-sensitive alkali-solubilizable resin and a photoacid generator, wherein the resin has repeating unit I (R1 = H, Me, cyano, etc.; R2 = acid -insensitive group; n = integer 0-4) and [-C(R3)(R4)-C(R5)(COOX)-] (R3-5 = H, F, Cl, etc.; X1 = H, orgs.) and wherein the photoacid generator has general structure II (R1p-5P = H, alkyl, alkoxy, etc.; R6P-7P = H, alkyl, cyano, etc.; Y1P-2P = alkyl, aryl, aralkyl, etc.; Y3P = single bond, 2-valent connecting group; X- = non-nucleophilic anion). The composition generates little gas during the exposure and provides high contrast pattern.

IT 387382-49-2

(resin in EUV-sensitive pos.-working resist composition)

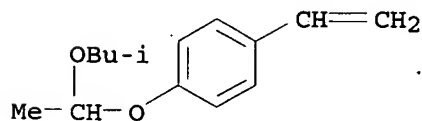
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

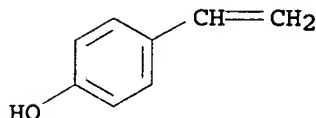
CM 1

CRN 192314-53-7

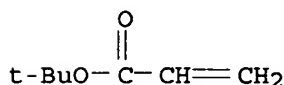
CMF C14 H20 O2



CM 2

CRN 2628-17-3
CMF C8 H8 O

CM 3

CRN 1663-39-4
CMF C7 H12 O2

IC ICM G03F007-039

ICS C08F008-12; G03F007-004; G03F007-20; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 155040-27-0 159296-87-4 178889-54-8 186585-53-5 258871-96-4
 301153-46-8 333758-18-2 345349-50-0 387382-49-2
 552840-49-0 848352-68-1 848352-73-8 848352-74-9 848352-75-0
 848352-79-4 848352-80-7 848352-82-9 848352-84-1 848352-86-3
 849348-32-9 849348-35-2 849348-43-2 849348-46-5 849348-51-2
 866034-99-3 866035-00-9 866035-02-1 866035-03-2 866035-04-3
 866035-05-4 866035-07-6 866035-08-7 866035-09-8 866035-10-1
 866035-11-2 866035-12-3 866035-13-4 866035-14-5

(resin in EUV-sensitive pos.-working resist composition)

L18 ANSWER 14 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1048423 HCAPLUS

DOCUMENT NUMBER: 143:336291

TITLE: Positive photoresist composition for use with electron beam, EUV light or x ray, and pattern formation method using the same

INVENTOR(S): Mizutani, Kazuyoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 73 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP. 1580601	A1	20050928	EP 2005-6536	20050324

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
 PL, SK, BA, HR, IS, YU

JP 2005275283	A	20051006	JP 2004-92091	20040326
			<--	
KR 2006044803	A	20060516	KR 2005-25227	20050326
			<--	
US 2005221224	A1	20051006	US 2005-90864	20050328
			<--	

PRIORITY APPLN. INFO.:

JP 2004-92091 A 20040326

<--

ED. Entered STN: 30 Sep 2005

AB A pos. resist composition for use with an electron beam, an EUV light or an X ray, the pos. resist composition comprises: (A) at least one compound that generates an acid upon treatment with one of an actinic ray and radiation; and (B) a resin that increases a solubility of the resin (B) in an alkaline developer by an action of an acid, wherein the resin (B) comprises a repeating unit having an alicyclic group connected with a fluorine-substituted alc. residue; and a pattern formation method using the composition

IT 865370-77-0P

(preparation or polymer for pos. photoresist composition)

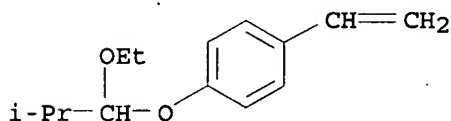
RN 865370-77-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 5(or 6)-[3,3,3-trifluoro-2-hydroxy-2-(trifluoromethyl)propyl]bicyclo[2.2.1]hept-2-yl ester, polymer with 1-ethenyl-4-(1-ethoxy-2-methylpropoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 805240-50-0

CMF C14 H20 O2

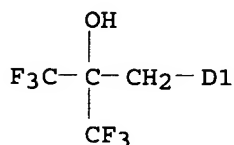
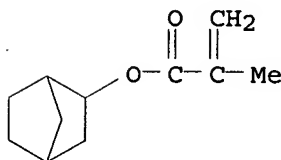


CM 2

CRN 585578-37-6

CMF C15 H18 F6 O3

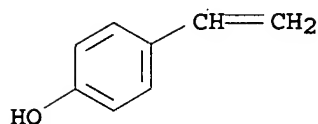
CCI IDS



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-039

ICS G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 865370-69-0P 865370-70-3P 865370-71-4P 865370-72-5P

865370-73-6P 865370-74-7P 865370-75-8P 865370-76-9P

865370-77-0P 865370-79-2P 865370-80-5P 865370-82-7P

865370-83-8P

(preparation or polymer for pos. photoresist composition)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 15 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1023855 HCAPLUS

DOCUMENT NUMBER: 143:315460

TITLE: Positive-working resist composition for electron
beam, x-ray, and EUV lithography and method of
forming pattern using the same

INVENTOR(S): Mizutani, Kazuyoshi; Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005258124	A	20050922	JP 2004-70239	20040312

PRIORITY APPLN. INFO.: JP 2004-70239 20040312

ED Entered STN: 22 Sep 2005

AB Disclosed a pos.-working resist composition comprising (a) a compound capable
of generating sulfonic acid having a sp. structure upon receiving an
active ray or radiation and (b) a resin which has a sp. repeating unit
and decomp. upon an interaction with an acid, thereby increasing its
solubility in an alkali developer.

IT 325143-38-2

(resin; Pos.-working resist composition for electron beam, x-ray, and
EUV lithog.)

RN 325143-38-2 HCAPLUS

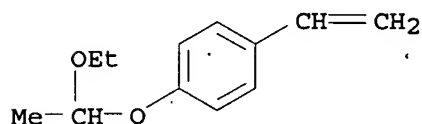
CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with

1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

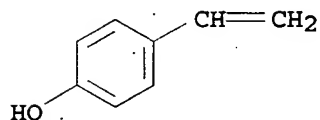
CMF C12 H16 O2



CM 2

CRN 2628-17-3

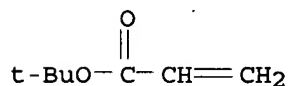
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004

ICS C08F012-22; G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 177034-75-2 199432-82-1 200808-68-0 288620-13-3

325143-38-2 326591-96-2 610301-50-3 864837-87-6

864837-90-1 864837-91-2

(resin; Pos.-working resist composition for electron beam, x-ray, and EUV lithog.)

L18 ANSWER 16 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:902343 HCAPLUS

DOCUMENT NUMBER: 143:238687

TITLE: Photosensitive compositions with high sensitivity, resolution, and wide defocus (DOF) latitude, sulfonium salts therefor, and method for patterning therewith

INVENTOR(S): Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005227680	A	20050825	JP 2004-38307	20040216

PRIORITY APPLN. INFO.: JP 2004-38307 20040216
 <--

OTHER SOURCE(S): MARPAT 143:238687

ED Entered STN: 26 Aug 2005

AB The compns. contain (A) sulfonium salts having
 (ASO₂Rx)m₁Y₁S+[Y₂(RxSO₂A)m₂][Y₃(RxSO₂A)m₃] [Y₁-Y₃ = organic group; A =
 (cyclo)alkyl, aryl, aralkyl, camphoryl; Rx = single bond, O, NR_y; Ry =
 H, (cyclo)alkyl; m = 1-3; m₁, m₂, m₃ = 0-3; m₁ + m₂ + m₃ = 1-6]. The
 compns. may contain (B) resins which can be decomposed by acids to
 increase alkaline solubility or, (D) resins soluble in alkaline developers and

(E) agents for curing D by acids. In the process, the compns. are formed
 into films, which are exposed and developed to give patterns.

IT 325143-38-2
 (photolithog. using photosensitive compns. containing sulfonyl-bearing
 sulfonium compds. as photoacid generators and showing wide defocus
 latitude)

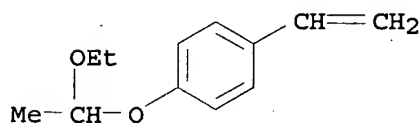
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX
 NAME)

CM 1

CRN 157057-20-0

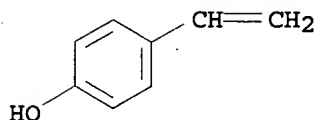
CMF C12 H16 O2



CM 2

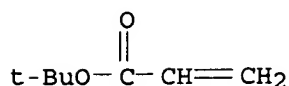
CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 1663-39-4
CMF C7 H12 O2



IC ICM G03F007-004
ICS C07C381-12; G03F007-038; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 158593-28-3 177034-75-2 196709-91-8 200808-68-0 250378-10-0
288620-13-3 289623-64-9 312620-54-5 325143-37-1
325143-38-2 359635-35-1 366808-82-4 370102-83-3
370866-39-0 372968-15-5 391232-36-3 398140-43-7 406702-00-9
459418-30-5 482609-97-2 524699-47-6 607710-65-6 607710-67-8
607710-68-9 607710-69-0 607710-70-3 610300-92-0 610300-93-1
610300-94-2 610300-95-3 615278-35-8 677351-20-1 677351-26-7
848408-51-5 848408-52-6 862261-72-1 862997-26-0 862997-27-1
862997-31-7 862997-34-0 862997-41-9 862997-57-7 862997-60-2
(photolithog. using photosensitive compns. containing sulfonyl-bearing sulfonium compds. as photoacid generators and showing wide defocus latitude)

L18 ANSWER 17 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:901984 HCAPLUS

DOCUMENT NUMBER: 143:257056

TITLE: Positive resist composition and pattern forming method using the same

INVENTOR(S): Sasaki, Tomoya; Mizutani, Kazuyoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1566694	A1	20050824	EP 2005-3531	20050218
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
US 2005186506	A1	20050825	US 2005-60533	20050218
<--				
US 7157208	B2	20070102		
JP 2005266801	A	20050929	JP 2005-42327	20050218
<--				
KR 2006042972	A	20060515	KR 2005-13477	20050218
<--				
PRIORITY APPLN. INFO.:			JP 2004-44693	A 20040220
<--				

ED Entered STN: 26 Aug 2005

AB A pos. resist composition satisfying all of high sensitivity, high resolution, good pattern profile, good line edge roughness and good in-vacuum PED

characteristics, is provided. The pos. resist composition comprises: (A) a resin containing a repeating unit having a specific styrene skeleton, which is insol. or hardly soluble in an alkali developer and becomes soluble in an alkali developer under the action of an acid; (B) a compound capable of generating an acid upon irradiation with actinic rays or radiation; and (C) an organic basic compound, and a pattern formation method using the pos. resist composition

IT 863224-13-9P

(pos. resist composition for pattern forming method containing)

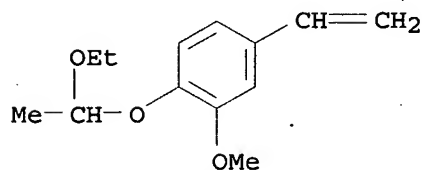
RN 863224-13-9 HCAPLUS

CN 2-Propenoic acid, 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl ester, polymer with 4-ethenyl-1-(1-ethoxyethoxy)-2-methoxybenzene and 4-ethenyl-2-methoxyphenol (9CI) (CA INDEX NAME)

CM 1

CRN 863223-83-0

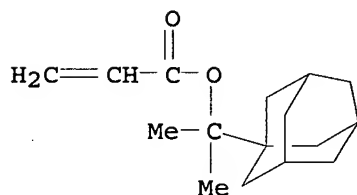
CMF C13 H18 O3



CM 2

CRN 300833-10-7

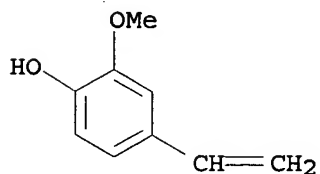
CMF C16 H24 O2



CM 3

CRN 7786-61-0

CMF C9 H10 O2



IC ICM G03F007-004

ICS G03F007-039
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38, 76
IT 18370-86-0DP, 2-Phenoxyethyl vinyl ether, reaction product with hydroxy group of a hydroxy styrene polymer 32440-04-3DP, 3-Methoxy-4-acetoxystyrene homopolymer, hydrolyzed then hydroxy group reacted with a vinyl ether 863223-84-1DP, hydrolyzed then hydroxy group reacted with a vinyl ether 863223-85-2DP, tert-Butyl acrylate-3-Methoxy-4-acetoxy styrene copolymer, hydrolyzed
863223-87-4P 863223-89-6P 863223-91-0P 863223-93-2P
863223-96-5P 863223-99-8P 863224-01-5P 863224-03-7P
863224-05-9P 863224-08-2P 863224-10-6P 863224-11-7P
863224-12-8P 863224-13-9P 863224-14-0P 863224-15-1P
863224-16-2P 863224-18-4P 863224-19-5P 863224-20-8P
863224-22-0P 863224-24-2P 863224-25-3P 863224-27-5P
(pos. resist composition for pattern forming method containing)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

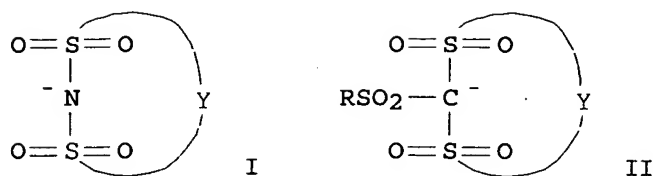
L18 ANSWER 18 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:822672 HCAPLUS
DOCUMENT NUMBER: 143:219455
TITLE: Chemically-amplified far-UV positive photoresists and negative photoresists, and their patterning method
INVENTOR(S): Kodama, Kunihiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005221721	A	20050818	JP 2004-29068	20040205
			<--	
US 2005266336	A1	20051201	US 2005-41748	20050125
			<--	
EP 1566692	A1	20050824	EP 2005-2140	20050202
			<--	

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
PL, SK, BA, HR, IS, YU

PRIORITY APPLN. INFO.: JP 2004-29068 A 20040205
<--

OTHER SOURCE(S): MARPAT 143:219455
ED Entered STN: 19 Aug 2005
GI



AB Both the photoresists contain sulfonium salts or iodonium salts bearing anions of I and II [Y = fluorine-substituted alkylene, R = (cyclo)alkyl] as photoacid generators. The pos. photoresists contain the photoacid generators and polymers increasing solubility in alkaline developers upon decomposition with acids. The neg. photoresists contain the photoacid generators, polymers soluble in alkaline developers, and crosslinking agents undergoing crosslinking with the polymers upon acid action. The photoresists provide patterns with good edge sharpness.

IT 325143-38-2

(binder; in chemical-amplified pos. far-UV photoresists containing sulfonium or iodonium salt photoacid generators)

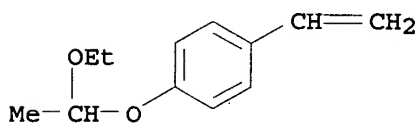
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

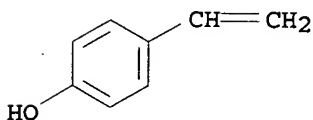
CMF C12 H16 O2



CM 2

CRN 2628-17-3

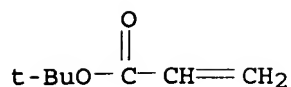
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
ICS G03F007-038; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 129674-22-2 177034-75-2 200808-68-0 249743-11-1 250378-10-0
288620-13-3 289623-64-9 312620-54-5 325143-37-1
325143-38-2 359635-35-1 366808-82-4 370102-83-3
370866-39-0 372968-15-5 391232-36-3 398140-43-7 406702-00-9
459418-30-5 482609-97-2 524699-47-6 607357-61-9 607710-65-6
607710-66-7 607710-67-8 607710-68-9 607710-69-0 607710-70-3
610300-92-0 610300-93-1 610300-94-2 610300-95-3 610300-96-4
610301-49-0 610301-50-3 615278-35-8 669088-11-3 845795-93-9
848408-51-5 848408-52-6 862261-72-1 862261-73-2

(binder; in chemical-amplified pos. far-UV photoresists containing sulfonium or iodonium salt photoacid generators)

L18 ANSWER 19 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:253318 HCAPLUS

DOCUMENT NUMBER: 142:345147

TITLE: Photosensitive composition and pattern forming method using the same

INVENTOR(S): Kodama, Kunihiko; Wada, Kenji; Satoh, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 146 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1517179	A1	20050323	EP 2004-21460	20040909
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2005122134	A	20050512	JP 2004-262499	20040909
<--				
KR 2005026900	A	20050316	KR 2004-72682	20040910
<--				
US 2005095532	A1	20050505	US 2004-937270	20040910
<--				
US 7189492	B2	20070313		
PRIORITY APPLN. INFO.:			JP 2003-318276	A 20030910
<--				
			JP 2003-327608	A 20030919
<--				
			JP 2003-333503	A 20030925
<--				

OTHER SOURCE(S): MARPAT 142:345147

ED Entered STN: 24 Mar 2005

AB The present invention relates to a photosensitive composition containing a

compound capable of generating a specific acid having the plural number of sulfonic groups by irradiation with an actinic ray or a radiation and a pattern forming method using the same.

IT 325143-38-2

(resin; photosensitive composition for pattern forming method containing)

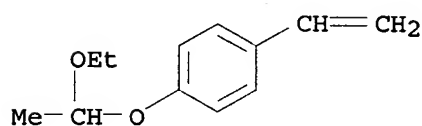
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX
NAME)

CM 1

CRN 157057-20-0

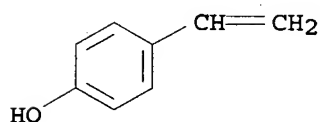
CMF C12 H16 O2



CM 2

CRN 2628-17-3

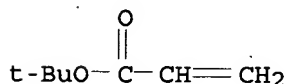
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



.IC ICM G03F007-004

ICS G03F007-039; G03F007-038

CC' 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 35, 38

IT 129674-22-2 158593-28-3 177034-75-2 200808-68-0

325143-38-2 372968-15-5 610301-49-0 610301-50-3

(resin; photosensitive composition for pattern forming method containing)

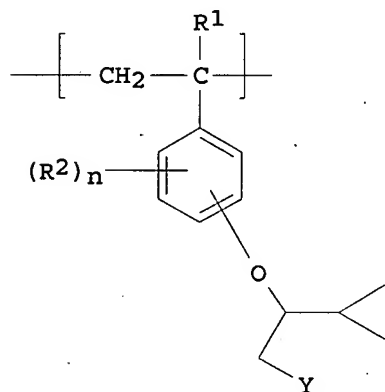
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 20 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

USHA SHRESTHA EIC 1700 REM 4B31

ACCESSION NUMBER: 2004:1058731 HCAPLUS
 DOCUMENT NUMBER: 142:45909
 TITLE: Resist material containing phenolic resin and pattern formation
 INVENTOR(S): Takeda, Takanobu; Watanabe, Osamu; Manba, Daisuke
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004348014	A	20041209	JP 2003-147140	20030526
			<--	
JP 3981830	B2	20070926		
KR 2004101929	A	20041203	KR 2004-37234	20040525
			<--	
US 2007148584	A1	20070628	US 2004-852157	20040525
			<--	
US 7267923	B2	20070911		
PRIORITY APPLN. INFO.:			JP 2003-147140	A 20030526
			<--	
ED Entered STN: 10 Dec 2004				
GI				



I

AB Disclosed is the resist material containing a polymer compound with the weight average mol. weight 1,000-500,000 having a repeating unit I ($R^1 = H, OH, alkyl, etc.$; $R^2 = H, OH, trifluoromethyl$; $Y = Me, Et, Pr$; and $n = 0-4$). The use of the polymer compound exhibited large contrast in alkali solubility before and after the exposure.

IT 805240-56-6P

(resist material containing phenolic resin)

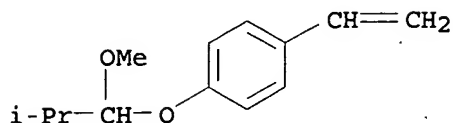
RN 805240-56-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with 1-ethenyl-4-(1-methoxy-2-methylpropoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 805240-48-6

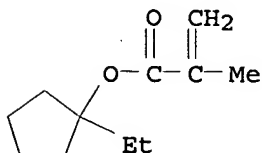
CMF C13 H18 O2



CM 2

CRN 266308-58-1

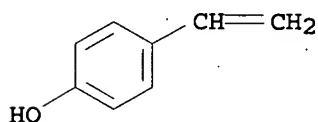
CMF C11 H18 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-039

ICS G03F007-033; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 805240-49-7P 805240-51-1P 805240-53-3P 805240-54-4P

805240-55-5P 805240-56-6P

(resist material containing phenolic resin)

L18 ANSWER 21 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:906027 HCAPLUS

DOCUMENT NUMBER: 141:386387

TITLE: Photoresists with reduced undesired outgassing
INVENTOR(S): Cameron, James F.; Trefonas, Peter; Barclay, George C.

PATENT ASSIGNEE(S): Rohm and Haas, Electronic Materials L.L.C., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092831	A2	20041028	WO 2004-US11025	20040409

WO 2004092831 A3 20050623

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005032373	A1	20050210	US 2004-822225	20040409
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US 7297616 B2 20071120

PRIORITY APPLN. INFO.:

US 2003-462409P P 20030409

ED Entered STN: 29 Oct 2004

AB New photoresists are provided that can be applied and imaged with reduced undesired outgassing and/or as thick coating layers. Preferred resists of the invention are chemical-amplified pos.-acting resists that contain photoactive and resin components.

IT 782502-18-5

(photoresists with reduced undesired outgassing)

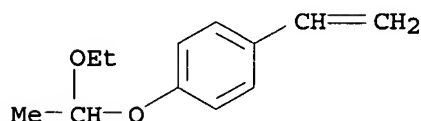
RN 782502-18-5 HCAPLUS

CN 2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

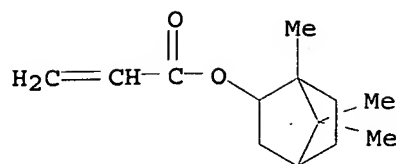
CMF C12 H16 O2



CM 2

CRN 128946-20-3

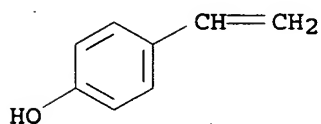
CMF C13 H20 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 84563-54-2
 129674-22-2 158593-28-3 159296-87-4 177034-67-2 177034-75-2
 194999-85-4 199432-82-1 200808-68-0 216258-44-5 257288-16-7
 333758-18-2 402571-96-4 782502-11-8 782502-12-9 782502-13-0
 782502-14-1 782502-16-3 782502-17-4 782502-18-5
 782502-19-6 782502-20-9 782502-21-0

(photoresists with reduced undesired outgassing)

L18 ANSWER 22 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:286844 HCAPLUS

DOCUMENT NUMBER: 140:329525

TITLE: Photosensitive composition and acid generator

INVENTOR(S): Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 83 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1406122	A2	20040407	EP 2003-21631	20030925
EP 1406122	A3	20041201		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004117688	A	20040415	JP 2002-279273	20020925
KR 2004030306	A	20040409	KR 2003-65761	20030923
US 2004072097	A1	20040415	US 2003-668348	20030924

US 7033727
PRIORITY APPLN. INFO.:

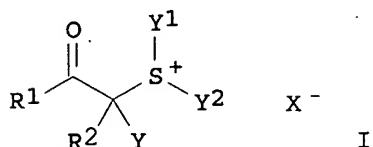
B2 20060425

JP 2002-279273

A 20020925

<--

OTHER SOURCE(S): MARPAT 140:329525
ED Entered STN: 08 Apr 2004
GI



AB A photosensitive composition comprises an acid generator of the formula I (R1 = alkyl; R2 = H, alkyl, aryl; Y = alkyl; Y1, Y2 = alkyl, aryl, aralkyl, hetero atom-containing aromatic; R1 and R2 may be bonded to each other to form a ring; R2 and Y may be bonded to each other to form a ring; Y1 and Y2 may be bonded to each other to form a ring; two or more structures of the general formula I may be bonded to each other at any position of R1, R2 or Y, or Y1 or Y2 via a connecting group; X = non-nucleophilic anion), an alkaline developer-soluble resin, an acid crosslinking agent, a basic compound, and a surfactant. The object of the present invention is to provide an acid generator that has a high transparency against rays of not longer than 220 nm, has an enhanced photodegrdn. ability as compared with conventionally known acid generators, thereby revealing high sensitivity, and providing a good resist profile. The photosensitive composition of the present invention has excellent sensitivity and pattern profile.

IT 325143-38-2

(photosensitive composition and acid generator)

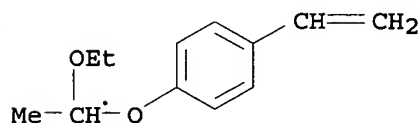
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester; polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

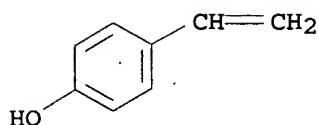
CMF C12 H16 O2



CM 2

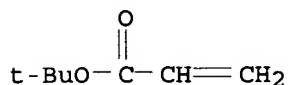
CRN 2628-17-3

CMF C8 H8 O



CM 3

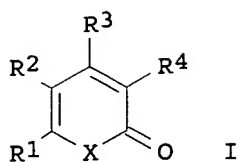
CRN 1663-39-4
CMF C7 H12 O2



IC ICM G03F007-004
ICS G03F007-039
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 24979-69-9 24979-70-2 129674-22-2 137462-24-9, Megafac F176.
158593-28-3 177034-75-2 185405-14-5 200808-68-0 216679-67-3,
Megafac R08 321164-59-4 **325143-38-2** 345212-27-3
372968-15-5 610301-50-3 677351-26-7
(photosensitive composition and acid generator)

L18 ANSWER 23 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:271619 HCAPLUS
DOCUMENT NUMBER: 140:311999
TITLE: Photosensitive acid generators and photosensitive compositions
INVENTOR(S): Kodama, Kunihiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004099726	A	20040402	JP 2002-262750	20020909
			<--	
PRIORITY APPLN. INFO.:			JP 2002-262750	20020909
			<--	
OTHER SOURCE(S):	MARPAT 140:311999			
ED	Entered STN: 02 Apr 2004			
GI				



AB The disclosed photoacid generators are compds. of the formula I (R1-4 = H, alkyl, aryl, halo, alkoxy; ≥ 1 of R1-4 is a substituent having OSO₂R end group; R = alkyl, aryl, camphor moiety; X = O, NH, NR₅, CHNR₅m; R₅ =alkyl; n, m = 0, 1, 2; n + m = 2; adjacent two of R1-4 may combine to form rings). The disclosed pos.-working photosensitive composition comprises the photoacid generator and an alkali-soluble resin. The disclosed neg.-working photosensitive composition comprises the photoacid generator, alkali-soluble resin and acid crosslinking agent. The photosensitive composition exhibit high sensitivity, excellent resolution, and image quality.

IT 325143-38-2

(resin for photoacid generation type neg.-working photoresist compns.)

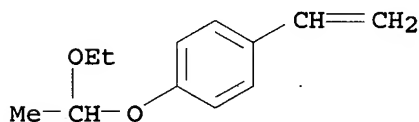
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

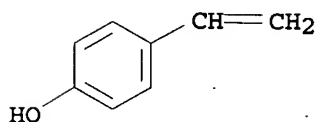
CMF C12 H16 O2



CM 2

CRN 2628-17-3

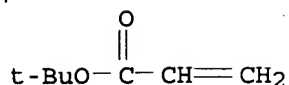
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



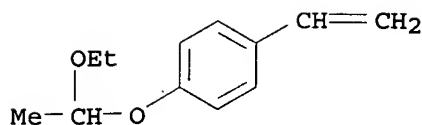
IC ICM C09K003-00
 ICS C07C309-65; C07C381-12; C07D311-52; G03F007-004; G03F007-038;
 G03F007-039; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 IT 129674-22-2 158593-28-3 177034-73-0 177034-75-2 199432-82-1
 200808-68-0 228101-60-8 252570-52-8 288620-13-3 288620-15-5
 289706-85-0 325143-38-2 326591-96-2 372968-15-5
 503003-65-4
 (resin for photoacid generation type neg.-working photoresist
 compns.)

L18 ANSWER 24 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:200859 HCAPLUS
 DOCUMENT NUMBER: 140:261393
 TITLE: Resist composition for preparation of contact hole
 pattern
 INVENTOR(S): Sato, Kenichiro; Fujimori, Toru; Tsuchimura,
 Toshitaka
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 123 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004077817	A	20040311	JP 2002-238272	20020819

PRIORITY APPLN. INFO.: JP 2002-238272 20020819
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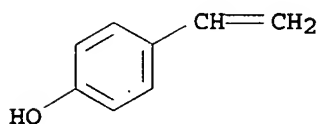
ED Entered STN: 12 Mar 2004
 AB Title resist composition providing good defocus latitude, profile, and side
 lobe margin comprises (A) a compound generating acid upon radiation, (B)
 a resin which has increased solubility in alkaline developing liquid in the
 presence of an acid, and (C) a compound containing a long alkyl group and an
 alkali-soluble group.
 IT 325143-38-2
 (preparation of resist composition for preparation of contact hole pattern)
 RN 325143-38-2 HCAPLUS
 CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX
 NAME)
 CM 1
 CRN 157057-20-0
 CMF C12 H16 O2



CM 2

CRN 2628-17-3

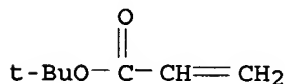
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039

ICS G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 129674-22-2 158593-28-3 177034-75-2 200808-68-0

325143-38-2 372968-15-5 669088-11-3

(preparation of resist composition for preparation of contact hole pattern)

L18 ANSWER 25 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:178264 HCAPLUS

DOCUMENT NUMBER: 140:225799

TITLE: Positive resist compositions with excellent sensitivity to high-energy beams and reduced line-edge roughness

INVENTOR(S): Yasunami, Shoichiro; Takahashi, Omote; Mizutani, Kazuyoshi.

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004070147	A	20040304	JP 2002-231477	20020808

<--

US 2004043323

A1

20040304

US 2003-634954

20030806

<--

US 7105273

B2

20060912

PRIORITY APPLN. INFO.:

JP 2002-231477

A 20020808

<--

OTHER SOURCE(S): MARPAT 140:225799

ED Entered STN: 04 Mar 2004

AB The compns., showing high sensitivity to excimer laser, electron beam, and x ray, contain alkali-insol. phenolic polymers (A, showing alkali solubility by acid treatment) having repeating units bearing acetal- or ketal-protected phenolic OH groups and/or tertiary ester- or tetrahydropyranyl-protected carboxyl groups, radiation-induced acid generators RC:OCR6R7S+Y1Y2.X- [B; R = (un)substituted Ph; R6,7 = H; Y1,2 = alkyl, alkenyl, aryl; Y1 and/or Y2 = aryl; Y1, Y2, and S+ may form ring; ≥1 of R1-5 may form ring with Y1 and/or Y2; X- = C≥3 alkanesulfonate anion, benzenesulfonate anion, naphthalenesulfonate anion, anthracenesulfonate anion, camphorsulfonate anion], and optionally N-containing basic compds. (C).

IT 666256-40-2

(acid-labile polymer; pos. resist compns. with good sensitivity and reduced line-edge roughness containing acid-labile polymers bearing protected phenolic OH groups and/or protected carboxyl groups)

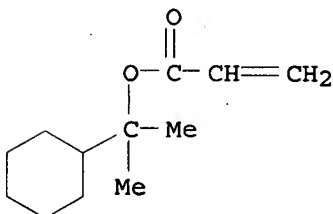
RN 666256-40-2 HCAPLUS

CN 2-Propenoic acid, 1-cyclohexyl-1-methylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 383196-79-0

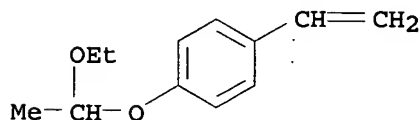
CMF C12 H20 O2



CM 2

CRN 157057-20-0

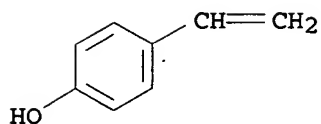
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-004
ICS G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 24979-70-2 125325-82-8 142952-62-3 158593-28-3 177984-03-1
258871-96-4 279244-35-8 287381-54-8 326591-96-2 528853-12-5
666256-40-2 666256-41-3 666256-42-4 666256-44-6
(acid-labile polymer; pos. resist compns. with good sensitivity and reduced line-edge roughness containing acid-labile polymers bearing protected phenolic OH groups and/or protected carboxyl groups)

L18 ANSWER 26 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:853315 HCAPLUS
DOCUMENT NUMBER: 139:356046
TITLE: Chemically amplified positive-working photoresist composition
INVENTOR(S): Hyakuta, Atsushi; Kawabe, Yasumasa
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003307840	A	20031031	JP 2003-35222	20030213

PRIORITY APPLN. INFO.: JP 2002-35817 A 20020213

OTHER SOURCE(S): MARPAT 139:356046

ED Entered STN: 31 Oct 2003

AB The claimed composition comprises (a) a resin increasing its alkali solubility by acid decomposition and (b) compds. capable of generating an acid upon irradiation with an actinic ray or a radiation (1) an oximesulfonate compound R1R2C:NOO2SR3 (R1 and R2 = alkyl, alkenyl, alkynyl, aryl, heterocyclic, or cyano; R1 and R2 may combine to form a ring; R3 = alkyl or aryl) and (2) an onium salt R11N+R12R13R14X-, R15S+R16R17X-, and/or R18I+R19X- (R11-R19 = alkyl, cycloalkyl, acyl, or aryl; X- = OH- or anion of carboxylic acid having mol. weight ≤100). The composition provides suppressed line edge roughness and high PED (post-exposure delay) stability.

IT 618115-23-4P

(chemical amplified pos.-working photoresist composition containing oximesulfonate compound and onium salt)

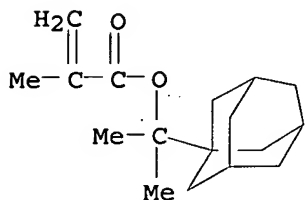
RN 618115-23-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methyl-1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 279218-76-7

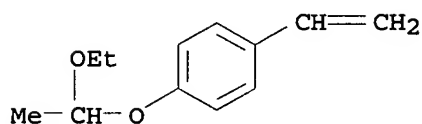
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CM 2

CRN 157057-20-0

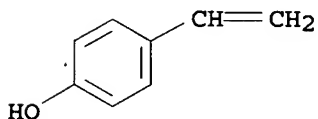
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-004

ICS G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 158593-28-3P, p-1-Ethoxyethoxystyrene-p-hydroxystyrene copolymer

159296-87-4P, tert-Butyl acrylate-p-hydroxystyrene copolymer.

287381-52-6P, p-1-Ethoxyethoxystyrene-p-hydroxystyrene-p-

isopropoxystyrene copolymer 288620-13-3P 325143-37-1P

618115-23-4P 618115-25-6P

(chemical amplified pos.-working photoresist composition containing oximesulfonate compound and onium salt)

L18 ANSWER 27 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:853314 HCAPLUS

DOCUMENT NUMBER: 139:343479

TITLE: Sulfonium compounds as radiation-sensitive acid generators and resist compositions containing them

INVENTOR(S): Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 66 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003307839	A	20031031	JP 2002-112372	20020415
JP 3841406	B2	20061101		
PRIORITY APPLN. INFO.:			JP 2002-112372	20020415

OTHER SOURCE(S): MARPAT 139:343479

ED Entered STN: 31 Oct 2003

AB (Ba)mAaS+Y1Y2 X- (I; Y1, Y2 = alkyl, aryl, aralkyl, heterocyclyl, oxoalkyl, oxoaralkyl; Y1 and Y2 may be bonded together to form a ring; Aa = direct bond, organic group; Ba = group having CONRa or SO2NRa; Ra = H, alkyl; m = 1-3; X- = nonnucleophilic anion), which generate acids upon irradiation with actinic ray or radiation, are claimed. Also claimed are resist compns. containing I, pos.-working resist compns. containing I and resins which are decomposed by acids to show increased solubility to an

alkaline

developer, neg.-working resist compns. containing I, water-insol. alkali-soluble resins, and crosslinking agents which crosslink to the alkali-soluble resins by acids, etc. The resist compns. containing I show high sensitivity, resolution, and good profile, and are especially suitable for irradiation with far-UV and electron beam.

IT 325143-38-2P

(preparation of sulfonium compds. having amide or sulfonamide linkage as radiation-sensitive acid generators and resist compns. containing them)

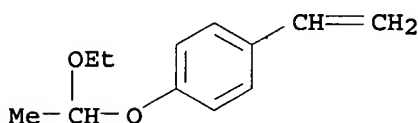
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

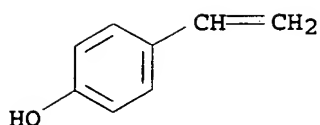
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CM 2

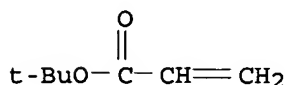
CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 1663-39-4
CMF C7 H12 O2



IC ICM G03F007-004
ICS C07C381-12; C08F012-14; C08F220-18; C08F220-26; C08F232-04;
C09K003-00; G03F007-038; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
IT 109-92-2DP, Ethyl vinyl ether, reaction products with
poly(hydroxystyrene) 129674-22-2P 143336-94-1P 159296-87-4P
177034-73-0P 177034-75-2P 199432-82-1P 200808-68-0P
228101-60-8P 250378-10-0P, Butyrolactone methacrylate-2-ethyl-2-
adamantyl methacrylate copolymer 288620-13-3P 288620-15-5P
289623-64-9P 289706-85-0P 312620-54-5P 325143-38-2P
326591-96-2P 359635-35-1P 366808-82-4P 370866-39-0P
372968-15-5P 391232-36-3P 398140-38-0P 398140-43-7P
398140-45-9P 398140-57-3P 398140-59-5P 398140-68-6P
398140-69-7P 398140-77-7P 398140-80-2P 405509-19-5P
406702-00-9P 430437-18-6P 459418-30-5P 482609-97-2P
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610300-97-5P 610300-98-6P 610301-00-3P 610301-01-4P
610301-03-6P 610301-04-7P 610301-05-8P 615278-35-8P
617692-20-3P

(preparation of sulfonium compds. having amide or sulfonamide linkage as
radiation-sensitive acid generators and resist compns. containing them)

L18 ANSWER 28 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:834248 HCAPLUS

DOCUMENT NUMBER: 139:330330

TITLE: Chemically amplified photoresist compositions with
high sensitivity and resolution

INVENTOR(S): Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003302754	A	20031024	JP 2002-110738	20020412

PRIORITY APPLN. INFO.:

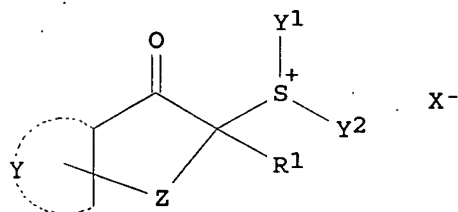
JP 2002-110738

20020412

OTHER SOURCE(S): MARPAT 139:330330

ED Entered STN: 24 Oct 2003

GI



I

AB The resist compns., useful for excimer laser development, contain photoacid generators I (R1 = H, alkyl, aryl, cyano; Y1, Y2 = alkyl, aryl, aralkyl, heteroring; Y = condensed aromatic group, heteroring; Z = single bond, divalent linking group; X- = nonnucleophilic anion).

IT 325143-38-2P

(sulfonium-based photoacid generators for excimer laser-sensitive photoresists with high sensitivity and resolution)

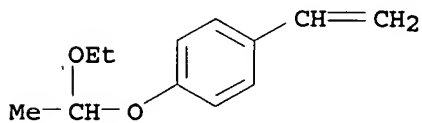
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

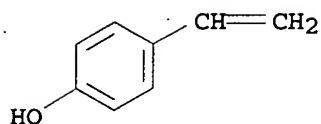
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CM 2

CRN 2628-17-3

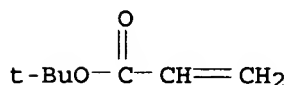
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
ICS G03F007-038; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 109-92-2DP, Ethyl vinyl ether, ethers with hydroxystyrene homopolymer 24979-70-2DP, VP 15000, ethers with Et vinyl ether 129674-22-2P
143336-94-1P 159296-87-4P 177034-73-0P 177034-75-2P
199432-82-1P 200808-68-0P 228101-60-8P 250378-10-0P,
Butyrolactone methacrylate-2-ethyl-2-adamantyl methacrylate copolymer
288620-13-3P 288620-15-5P 289623-64-9P 289706-85-0P
312620-54-5P 325143-38-2P 326591-96-2P 359635-35-1P
366808-82-4P 370102-83-3P 372968-15-5P 391232-36-3P
391613-77-7P 398140-38-0P 398140-43-7P 398140-45-9P
398140-59-5P 398140-68-6P 398140-69-7P 398140-77-7P
398140-80-2P 405509-19-5P 406702-00-9P 430437-18-6P
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515876-73-0P 521303-15-1P 521303-16-2P 524699-47-6P
574735-94-7P 607710-65-6P 607710-66-7P 607710-67-8P
607710-68-9P 607710-69-0P 607710-70-3P 607710-71-4P
607710-72-5P 607710-73-6P 607710-76-9P 607710-77-0P
610300-92-0P 610300-96-4P 610300-97-5P 610300-98-6P
610301-00-3P 610301-01-4P 610301-03-6P 610301-04-7P
610301-05-8P 615278-33-6P 615278-35-8P 615278-38-1P
(sulfonium-based photoacid generators for excimer laser-sensitive photoresists with high sensitivity and resolution)

L18 ANSWER 29 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:817583 HCAPLUS

DOCUMENT NUMBER: 139:314532

TITLE: Radiation sensitive composition and compound

INVENTOR(S): Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 99 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1353225 A2 20031015 EP 2003-7989 20030410
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 EP 1353225 A3 20031112
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 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 US 2003224288 A1 20031204 US 2003-409100 20030409
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 KR 2004002488 A 20040107 KR 2003-22609 20030410
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 JP 2004139014 A 20040513 JP 2003-106524 20030410
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 PRIORITY APPLN. INFO.: JP 2002-108104 A 20020410
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 JP 2002-240661 A 20020821
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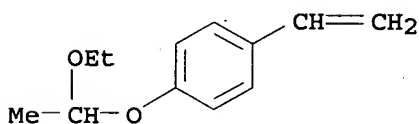
ED Entered STN: 17 Oct 2003

AB The present invention relates to a stimulation sensitive composition used for a semiconductor production process such as IC, a liquid crystal, the production of a circuit substrate such as a thermal head, further, other photo application system, lithog. printing, an acid curing composition, a radical curing composition and the like. The present invention relates to a stimulation sensitive composition comprising: (A) a compound represented by: $\text{ArC(=O)CR}_6\text{R}_7\text{S+Y}_1\text{Y}_2\text{X}^-$ (Ar = aryl or aromatic group containing a hetero atom; R6 = H, cyano, alkyl, aryl group; R7 = monovalent organic group; Y1,2 = alkyl, aryl, aralkyl, etc.; X- = non-nucleophilic anion) which is capable of generating an acid or a radical by stimulation from the external. (B) a resin.

IT 325143-38-2
 (radiation sensitive resist composition for semiconductor production process containing)
 RN 325143-38-2 HCAPLUS
 CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

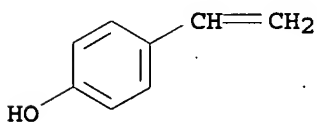
CM 1

CRN 157057-20-0
 CMF C12 H16 O2



CM 2

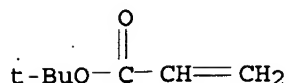
CRN 2628-17-3
 CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
 ICS G03F007-039; G03F007-038; C07C323-22
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 IT 129674-22-2 158593-28-3 177034-75-2 200808-68-0
 325143-38-2 372968-15-5 610301-49-0 610301-50-3
 (radiation sensitive resist composition for semiconductor production process containing)

L18 ANSWER 30 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:806137 HCAPLUS

DOCUMENT NUMBER: 139:330314

TITLE: Chemically amplified positive-working photoresist composition containing specific acetal polymer

INVENTOR(S): Adams, Timothy G.; Coley, Suzanne

PATENT ASSIGNEE(S): Shipley Company, L.L.C., USA

SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003295444	A	20031015	JP 2002-296564	20021009
			<--	
US 2003232273	A1	20031218	US 2002-268063	20021009
			<--	

PRIORITY APPLN. INFO.: US 2001-327800P P 20011009

<--

ED Entered STN: 15 Oct 2003

AB The invention relates to a photoresist composition containing a photoactive component and a polymer which has an alicyclic unit and a photoacid-labile acetal unit. The polymer provides effective imaging by sub-300 nm and sub-200 nm light.

IT 612835-42-4

(acetal polymer in chemical amplified pos.-working photoresist composition)

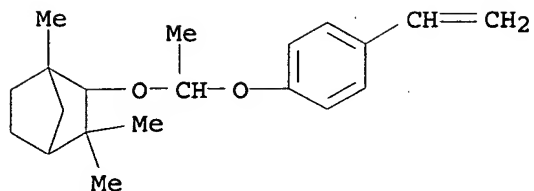
RN 612835-42-4 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1-[1-(1,1-dimethylethoxy)ethoxy]-4-ethenylbenzene, 4-ethenylphenol and
 2-[1-(4-ethenylphenoxy)ethoxy]-1,3,3-trimethylbicyclo[2.2.1]heptane
 (9CI) (CA INDEX NAME)

CM 1

CRN 612835-41-3

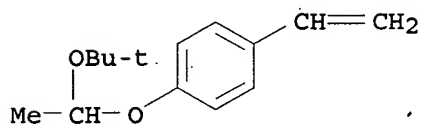
CMF C20 H28 O2



CM 2

CRN 169811-45-4

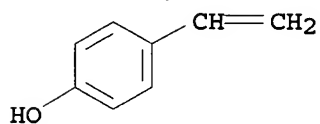
CMF C14 H20 O2



CM 3

CRN 2628-17-3

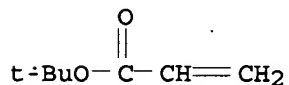
CMF C8 H8 O



CM 4

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039

ICS C08F216-38; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

IT 612835-42-4

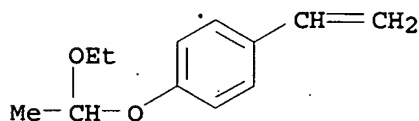
(acetal polymer in chemical amplified pos.-working photoresist composition)

L18 ANSWER 31 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:754897 HCAPLUS

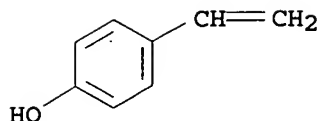
DOCUMENT NUMBER: 139:252537
 TITLE: Positive resist composition
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 89 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1347335	A1	20030924	EP 2003-6122	20030318
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2003270791	A	20030925	JP 2002-74565	20020318
<--				
JP 4025102	B2	20071219		
KR 2004002461	A	20040107	KR 2003-16097	20030314
<--				
US 2003224287	A1	20031204	US 2003-388408	20030317
<--				
US 7235341	B2	20070626		
PRIORITY APPLN. INFO.:			JP 2002-74565	A 20020318
<--				
ED	Entered STN: 26 Sep 2003			
AB	A pos. photoresist composition used in fabrication of semiconductor devices comprises: (A) a compound capable of generating an acid on exposure to active light rays or a radiation; (B) a resin which is insol. or sparingly soluble in an alkali and becomes alkali-soluble by an action of an acid; and (C) an acyclic compound having at least three groups selected from a hydroxyl group and a substituted hydroxyl group.			
IT	325143-38-2P (pos. photoresist composition containing)			
RN	325143-38-2 HCAPLUS			
CN	2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)			
CM	1			
CRN	157057-20-0			
CMF	C12 H16 O2			



CM 2

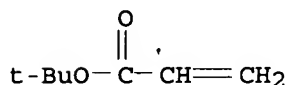
CRN 2628-17-3
 CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039

ICS G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 109-92-2DP, Ethyl vinyl ether, reaction product with polyhydroxystyrene 24979-70-2DP, VP15000, reaction product with alkyl vinyl ether 159296-87-4P 200808-68-0P 250378-10-0P, Butyrolactone methacrylate-2-ethyl-2-adamantyl methacrylate copolymer 262617-13-0P 288303-55-9P 325143-38-2P 364736-22-1P 391232-36-3P 398140-43-7P 398140-45-9P 398140-47-1P 398140-50-6P 398140-52-8P 398140-55-1P 398140-57-3P 398140-59-5P 398140-64-2P 398140-69-7P 398140-73-3P 398140-77-7P 398140-78-8P 398140-79-9P 398140-81-3P 398140-88-0P, tert-Butyl norbornenecarboxylate-maleic anhydride-2-methyl-2-adamantyl acrylate-norbornene lactone acrylate copolymer 398140-89-1P 398140-94-8P 398141-00-9P 398141-11-2P 398141-13-4P 398141-14-5P 405509-18-4P 430436-66-1P 430436-67-2P 430436-68-3P 430436-70-7P 430436-72-9P 430436-74-1P 430436-76-3P 430436-78-5P 430436-79-6P 430436-81-0P 430436-82-1P 430436-84-3P 430436-85-4P 430436-86-5P 430436-87-6P 430436-89-8P 430436-90-1P 430436-91-2P 430436-92-3P 430436-94-5P 430436-95-6P 430436-97-8P 430436-98-9P 430436-99-0P 430437-01-7P 430437-03-9P 430437-04-0P 430437-05-1P 430437-09-5P 430437-11-9P 430437-12-0P 430437-13-1P 430437-14-2P 430437-15-3P 430437-17-5P 430437-18-6P 430437-19-7P 430437-21-1P 430437-24-4P 431062-12-3P 431062-14-5P 431062-16-7P 431062-17-8P 431062-18-9P 431062-20-3P 431062-22-5P 462109-80-4P 471257-28-0P 503003-64-3P 597553-03-2P 597553-04-3P

(pos. photoresist composition containing)

REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 32 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:432985 HCAPLUS

DOCUMENT NUMBER: 139:14962

TITLE: Electron beam or x-ray resist compositions having high sensitivity and resolution

INVENTOR(S): Shirakawa, Hiroshi; Uenishi, Kazuya; Kodama,

PATENT ASSIGNEE(S): Kunihiro; Adekawa, Yutaka
 SOURCE: Fuji Photo Film Co., Ltd., Japan
 Jpn. Kokai Tokkyo Koho, 77 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003162051	A	20030606	JP 2001-360938	20011127

PRIORITY APPLN. INFO.: JP 2001-360938 20011127
 <--

ED Entered STN: 06 Jun 2003

AB The resist compns. contain electron beam- or x-ray sensitive acid generator involving ≥ 2 onium sulfonic acid salts selected from sulfonium sulfonic acid salts and iodonium sulfonic acid salts.

IT 387382-49-2

(binder; electron beam or x-ray resist compns. having high sensitivity and resolution)

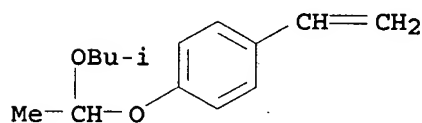
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 192314-53-7

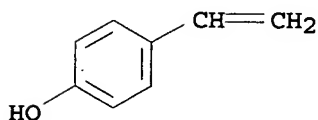
CMF C14 H20 O2



CM 2

CRN 2628-17-3

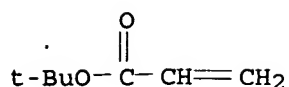
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 24979-69-9 129674-22-2 158593-28-3 159296-87-4 185405-11-2
 199432-82-1 288620-15-5 321164-59-4 325143-37-1 345212-27-3
 387382-45-8 **387382-49-2** 398457-05-1 398457-07-3
 398457-08-4
 (binder; electron beam or x-ray resist compns. having high sensitivity and resolution)

L18 ANSWER 33 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:241052 HCAPLUS
 DOCUMENT NUMBER: 138:262693
 TITLE: Positive photoresist composition
 INVENTOR(S): Fujimori, Toru; Kawabe, Yasumasa
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 101 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1296190	A1	20030326	EP 2002-21204	20020918
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2003167333	A	20030613	JP 2002-563	20020107
<--				
JP 4025074	B2	20071219		
US 2003134225	A1	20030717	US 2002-244070	20020916
<--				
US 7255971	B2	20070814		
TW 273346	B	20070211	TW 2002-91121294	20020918

PRIORITY APPLN. INFO.:
 JP 2001-285180 A 20010919
 <--
 JP 2002-563 A 20020107
 <--

ED Entered STN: 28 Mar 2003
 AB A pos. resist composition comprises the components of: (A) a compound capable of generating an acid upon irradiation with one of an actinic ray and a radiation; (B) a resin that is insol. or slightly soluble in alkalis, but becomes alkali-soluble under an action of an acid; (C) a basic compound; and (D) a compound comprising at least three hydroxyl groups or at least three substituted hydroxyl groups, and comprising at least one cyclic structure. The present invention relates to a pos. resist composition used in a process of manufacture semiconductors and which far UV light with wavelengths ≤ 250 nm is used as an exposure light source or an electron beam is used as an irradiation source.
 IT **325143-38-2P**

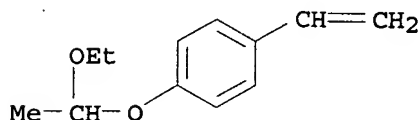
(pos. photoresist composition containing)

RN 325143-38-2 HCAPLUS
 CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX
 NAME)

CM 1

CRN 157057-20-0

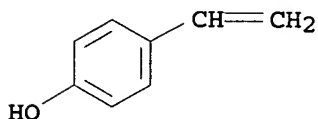
CMF C12 H16 O2



CM 2

CRN 2628-17-3

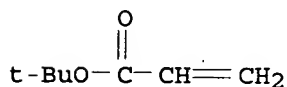
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 76

IT 24979-70-2DP, VP15000, reaction product with Et vinyl ether
 129674-22-2P 159296-87-4P 177034-73-0P 177034-75-2P
 199432-82-1P 200808-68-0P 228101-60-8P 250378-10-0P,
 Butyrolactone methacrylate-2-ethyl-2-adamantylmethacrylate copolymer
 262617-13-0P 288303-55-9P 288620-13-3P 288620-15-5P
 289706-85-0P **325143-38-2P** 326591-96-2P 364736-22-1P
 372968-15-5P 391232-36-3P 398140-38-0P 398140-43-7P
 398140-45-9P 398140-47-1P 398140-50-6P 398140-52-8P
 398140-55-1P 398140-57-3P 398140-59-5P 398140-64-2P
 398140-69-7P 398140-73-3P 398140-77-7P 398140-78-8P
 398140-79-9P 398140-81-3P 398140-86-8P 398140-87-9P
 398140-88-0P 398140-89-1P 398140-94-8P 398141-00-9P
 398141-11-2P 398141-13-4P 398141-14-5P 405509-18-4P

430436-66-1P	430436-67-2P	430436-68-3P	430436-70-7P
430436-72-9P	430436-74-1P	430436-76-3P	430436-78-5P
430436-79-6P	430436-81-0P	430436-82-1P	430436-84-3P
430436-85-4P	430436-86-5P	430436-87-6P	430436-89-8P
430436-90-1P	430436-91-2P	430436-92-3P	430436-94-5P
430436-95-6P	430436-97-8P	430436-98-9P	430436-99-0P
430437-09-5P	430437-11-9P	430437-12-0P	430437-13-1P
430437-14-2P	430437-15-3P	430437-17-5P	430437-18-6P
430437-19-7P	430437-21-1P	430437-22-2P	430437-24-4P
431062-12-3P	431062-14-5P	431062-16-7P	431062-17-8P
503003-64-3P	503003-65-4P		

(pos. photoresist composition containing)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 34 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:904531 HCAPLUS

DOCUMENT NUMBER: 137:391086

TITLE: Electron beam or x-ray sensitive positive-working
resist composition containing specific acid-stable
low molecular compound

INVENTOR(S): Sasaki, Tomoya; Mizutani, Kazuyoshi; Shirakawa,
Hiroshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002341538	A	20021127	JP 2001-142185	20010511
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TW 562999	B	20031121	TW 2002-91109156	20020502
			<--	
PRIORITY APPLN. INFO.:			JP 2001-138738	A 20010509
			<--	
			JP 2001-141626	A 20010511
			<--	
			JP 2001-142185	A 20010511
			<--	

ED Entered STN: 29 Nov 2002

AB The title composition contains an electron beam or x-ray sensitive
acid-generator, a resin increasing the solubility towards an alkali
developer by reacting with the acid, a low-mol. acid-stable compound,
and a solvent, wherein the acid stable compound has a residual group of
a compound with smaller ionization potential (Ip) than p-ethylphenol.
The resist shows the high sensitivity and high resolution and provides
the good PED stability.

IT 325143-38-2P, p-Hydroxystyrene-p-(1-ethoxyethoxy)styrene-tert-
butyl acrylate copolymer
(resin; electron beam or x-ray sensitive pos.-working resist
composition)

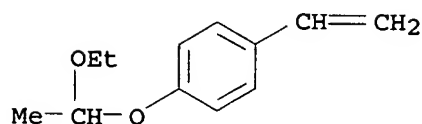
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX
NAME)

CM 1

CRN 157057-20-0

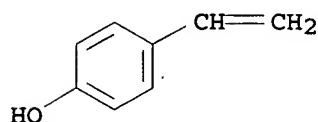
CMF C12 H16 O2



CM 2

CRN 2628-17-3

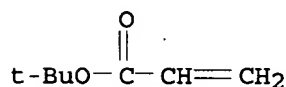
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039

ICS G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 24979-70-2P, p-Hydroxystyrene homopolymer 24979-74-6P,
 p-Hydroxystyrene-styrene copolymer 129674-22-2P,
 p-Hydroxystyrene-p-(tert-Butoxycarbonyloxy)styrene copolymer
 159296-87-4P, p-Hydroxystyrene-tert-butyl acrylate copolymer
 177034-67-2P, p-Hydroxystyrene-p-(1-ethoxyethoxy)styrene-styrene
 copolymer 288620-15-5P 297742-32-6P, p-Hydroxystyrene-4-(1-
 phenoxyethoxy)styrene-p-acetoxystyrene copolymer 325143-38-2P
 , p-Hydroxystyrene-p-(1-ethoxyethoxy)styrene-tert-butyl acrylate
 copolymer

(resin; electron beam or x-ray sensitive pos.-working resist
 composition)

L18 ANSWER 35 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:636853 HCAPLUS

DOCUMENT NUMBER: 137:177114

TITLE: Chemically amplified x-ray photoresists
 compositions with high sensitivity and resolution

INVENTOR(S): Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 73 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002236358	A	20020823	JP 2001-32855	20010208
KR 796585	B1	20080121	KR 2002-5898	20020201
TW 571178	B	20040111	TW 2002-91101972	20020205
PRIORITY APPLN. INFO.:				
			JP 2001-32855	A 20010208
			JP 2001-33923	A 20010209

OTHER SOURCE(S): MARPAT 137:177114

ED Entered STN: 23 Aug 2002

AB The compns. contain photoacid generators (PAG), which are decomposed by intramol. H radical transfer on irradiation

IT 387382-49-2
 (chemical amplified x-ray photoresists compns. with high sensitivity and resolution)

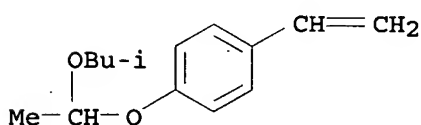
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol
 (CA INDEX NAME)

CM 1

CRN 192314-53-7

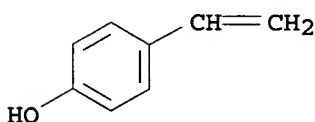
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CM 2

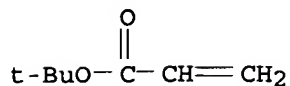
CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 1663-39-4
CMF C7 H12 O2



IC ICM G03F007-004
ICS G03F007-004; C08K005-10; C08K005-36; C08L101-00; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 129674-22-2
158593-28-3 159296-87-4 199432-82-1 288620-13-3 288620-15-5
289706-85-0 325143-37-1 345212-27-3 349647-01-4 359434-80-3
372968-15-5 387382-45-8 **387382-49-2** 387868-58-8
398457-05-1 398457-07-3 398457-08-4
(chemical amplified x-ray photoresists compns. with high sensitivity and resolution)

L18 ANSWER 36 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:522486 HCAPLUS

DOCUMENT NUMBER: 137:85954

TITLE: Resist composition comprising photosensitive polymer having Ph ring and lactone group

INVENTOR(S): Lee, Si-hyeung

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

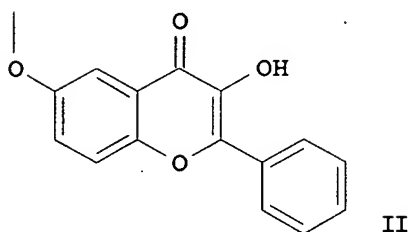
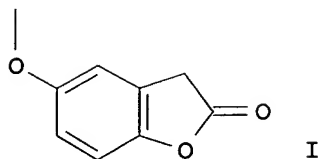
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002090568	A1	20020711	US 2001-933042	20010821
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US 6613492	B2	20030902		
KR 2002049876	A	20020626	KR 2000-79190	20001220
			<--	
JP 2002201223	A	20020719	JP 2001-386341	20011219
			<--	
JP 3990150	B2	20071010		
PRIORITY APPLN. INFO.:			KR 2000-79190	A 20001220
			<--	

ED Entered STN: 12 Jul 2002

GI



AB Disclosed is a photosensitive polymer having a Ph ring and a lactone group, and a resist composition, wherein the resist composition contains a photosensitive polymer including a monomer unit having at least one group selected from the groups indicated by the formulas I and II, and a photoacid generator (PAG). A photosensitive polymer according to the present invention comprises a material having a Ph ring capable of intensifying resistance to dry etching and a lactone group capable of improving the adhesive properties and exhibiting hydrophilic properties.

IT 440680-61-5P 440680-62-6P 440680-63-7P
440680-64-8P

(chemical amplified resist composition comprising photosensitive polymer having Ph ring and lactone group)

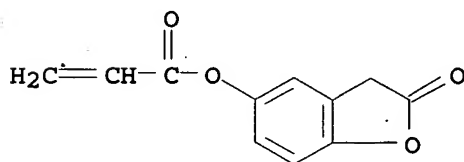
RN 440680-61-5 HCAPLUS

CN 2-Propenoic acid, 2,3-dihydro-2-oxo-5-benzofuranyl ester, polymer with 1-ethenyl-4-(1-methoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 440680-53-5

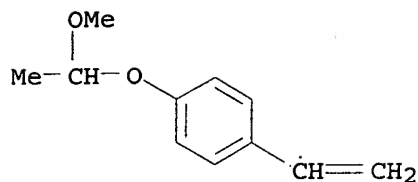
CMF C11 H8 O4



CM 2

CRN 151189-10-5

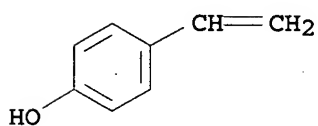
CMF C11 H14 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



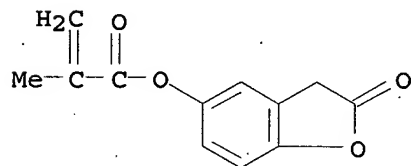
RN 440680-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,3-dihydro-2-oxo-5-benzofuranyl ester,
polymer with 1-ethenyl-4-(1-methoxyethoxy)benzene and 4-ethenylphenol
(9CI) (CA INDEX NAME)

CM 1

CRN 440680-54-6

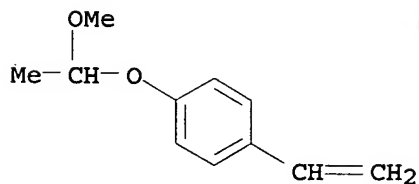
CMF C12 H10 O4



CM 2

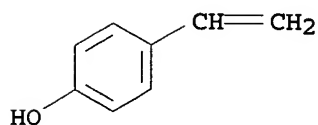
CRN 151189-10-5

CMF C11 H14 O2



CM 3

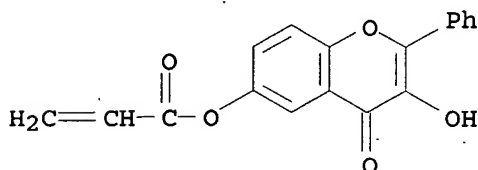
CRN 2628-17-3
CMF C8 H8 O



RN 440680-63-7 HCAPLUS
CN 2-Propenoic acid, 3-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester,
polymer with 1-ethenyl-4-(1-methoxyethoxy)benzene and 4-ethenylphenol
(9CI) (CA INDEX NAME)

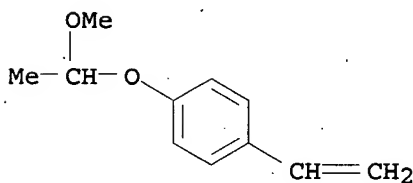
CM 1

CRN 440680-55-7
CMF C18 H12 O5



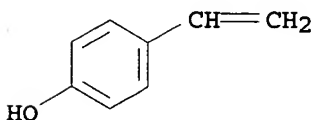
CM 2

CRN 151189-10-5
CMF C11 H14 O2



CM 3

CRN 2628-17-3
CMF C8 H8 O



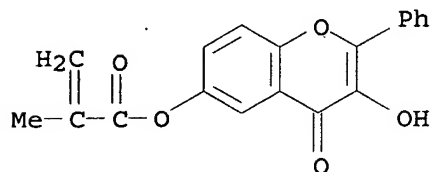
RN 440680-64-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-

6-yl ester, polymer with 1-ethenyl-4-(1-methoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 440680-59-1

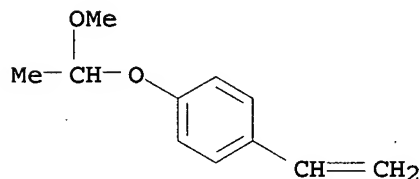
CMF C19 H14 O5



CM 2

CRN 151189-10-5

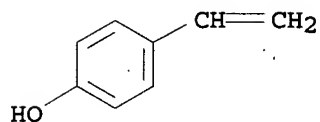
CMF C11 H14 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-038

INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT 440680-56-8P 440680-57-9P 440680-58-0P 440680-60-4P

440680-61-5P 440680-62-6P 440680-63-7P

440680-64-8P

(chemical amplified resist composition comprising photosensitive polymer having Ph ring and lactone group)

L18 ANSWER 37 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:447174 HCAPLUS

DOCUMENT NUMBER: 137:39321

TITLE: Positively working resist composition containing fluoropolymer for high resolution
 INVENTOR(S): Adegawa, Yutaka; Tan, Shiro; Sorori, Tadahiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 124 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002169295	A	20020614	JP 2001-272097	20010907
			<--	
TW 226509	B	20050111	TW 2001-90122094	20010906
			<--	
KR 784330	B1	20071213	KR 2001-56258	20010912
			<--	
PRIORITY APPLN. INFO.:			JP 2000-276896	A 20000912
			<--	
			JP 2000-283963	A 20000919
			<--	

OTHER SOURCE(S): MARPAT 137:39321

ED Entered STN: 14 Jun 2002

AB The resist composition contains (A) (a1) polymers with acid-sensitive alkali solubility, (a2) alkali-soluble polymers and low-mol-weight compds. with acid-sensitive alkali solubility (dissoln. inhibitors), or (a3) polymers with acid-sensitive alkali solubility and dissoln. inhibitors, (B) acid generator sensitive to actinic ray or radiation; and (C) polymers having fluoroaliph. groups in side chains, where the groups are obtained from fluoroaliph. compds. manufactured by telomerization or oligomerization. Also claimed is a chemical amplified pos. resist composition sensitive to electron beam or x-ray containing (A) acid generator and (B) alkali-soluble polymers with weight-average mol. weight >3000 and ≤300,000 which satisfy the following conditions: (1) the polymers contain ≥1 of repeating unit from monomers containing C6-20 aromatic ring and ethylenically unsatd. group and (2) the aromatic ring has controlled number of π electrons and the substituents of the aromatic ring have controlled number of unshared electron pairs. The chemical amplified resist composition has high resolution, high line-width reproducibility, and good pattern profiles.

IT 436812-33-8

(alkali-soluble polymer; chemical amplified pos. resist composition sensitive to electron beam or x-ray with high resolution)

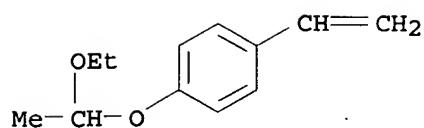
RN 436812-33-8 HCAPLUS

CN 2-Propenoic acid, 1-naphthalenyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

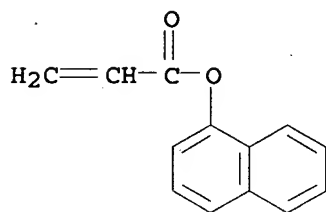
CMF C12 H16 O2



CM 2

CRN 20069-66-3

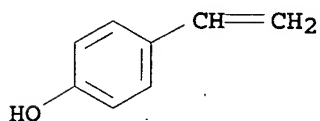
CMF C13 H10 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IT 325143-38-2P, tert-Butyl acrylate-p-(1-ethoxyethoxy)styrene-p-hydroxystyrene copolymer
(pos. working resist composition containing fluoropolymer for high resolution)

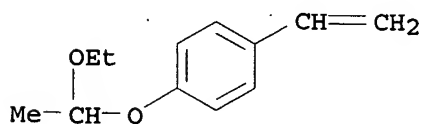
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

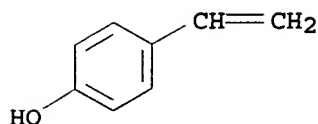
CRN 157057-20-0

CMF C12 H16 O2



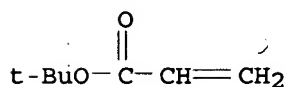
CM 2

CRN 2628-17-3
CMF C8 H8 O



CM 3

CRN 1663-39-4
CMF C7 H12 O2



- IC ICM G03F007-039
ICS C08F212-02; G03F007-004; G03F007-033; H01L021-027
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- IT 321164-59-4 345212-27-3 345212-28-4 345212-30-8 345212-54-6
345212-55-7 345212-56-8 345212-60-4 345212-61-5 345212-63-7
345212-64-8 345212-67-1 345212-69-3 345212-71-7 345212-73-9
345212-74-0 345212-75-1 345212-77-3 345212-78-4 345212-80-8
345212-82-0 345212-85-3 345212-86-4 345212-87-5 345212-89-7
345212-91-1 345212-92-2 345212-93-3 345212-95-5 345212-97-7
345212-99-9 425422-26-0 425422-30-6 425422-38-4 425422-40-8
436812-25-8 436812-26-9 436812-27-0 436812-28-1 436812-29-2
436812-31-6 436812-32-7 436812-33-8 436812-34-9
436812-35-0 436812-36-1 436812-37-2 436812-38-3 436812-39-4
436812-40-7 436812-41-8 436812-42-9 436812-43-0
(alkali-soluble polymer; chemical amplified pos. resist composition sensitive to electron beam or x-ray with high resolution)
- IT 24979-70-2P, p-Hydroxystyrene homopolymer 24979-74-6P, p-Hydroxystyrene-styrene copolymer 129674-22-2P, p-tert-Butoxycarbonyloxystyrene-p-hydroxystyrene copolymer 159296-87-4P, tert-Butyl acrylate-p-hydroxystyrene copolymer 177034-67-2P, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene-styrene copolymer 249562-17-2P, Maleic anhydride-2-methyl-2-adamantyl acrylate-norbornene copolymer 289706-85-0P, p-Acetoxystyrene-p-(1-benzyloxyethoxy)styrene-p-hydroxystyrene copolymer 325143-38-2P, tert-Butyl acrylate-p-(1-ethoxyethoxy)styrene-p-hydroxystyrene copolymer 436812-24-7P, p-Acetoxystyrene-p-hydroxystyrene-p-(1-phenethylethoxy)styrene copolymer
(pos. working resist composition containing fluoropolymer for high resolution)

L18 ANSWER 38 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:378689 HCAPLUS
DOCUMENT NUMBER: 136:393271
TITLE: Electron beam- or x-ray resist compositions with

INVENTOR(S): high sensitivity and resolution
 PATENT ASSIGNEE(S): Kodama, Kunihiro; Aogo, Toshiaki
 SOURCE: Fuji Photo Film Co., Ltd., Japan
 Jpn. Kokai Tokkyo Koho, 65 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002148788	A	20020522	JP 2000-343818	20001110

PRIORITY APPLN. INFO.: JP 2000-343818 20001110

OTHER SOURCE(S): MARPAT 136:393271

ED Entered STN: 22 May 2002

AB The composition contains a photoacid generator (A) containing ≥ 1 disulfone compound and sulfonium and/or iodonium sulfonate and a polymer (B) bearing an acid-degradable group for increasing solubility in an alkali developer solution. The composition, showing good PSD (post coating delay) stability, gives a pattern with good profile.

IT 387382-49-2
 (alkali-soluble polymer; electron beam- or x-ray resist compns. containing onium sulfonates with high sensitivity and resolution)

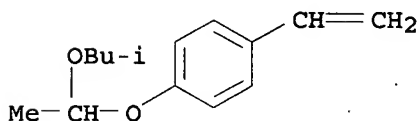
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 192314-53-7

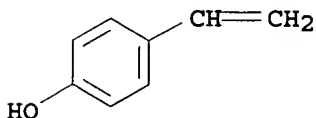
CMF C14 H20 O2



CM 2

CRN 2628-17-3

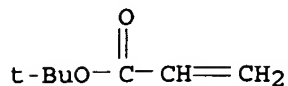
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
 ICS G03F007-004; C08K005-00; C08L025-18; C08L061-06; C08L101-02;
 G03F007-038; G03F007-039; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 IT 24979-70-2, VP 8000 27029-76-1, m-Cresol-p-cresol-formaldehyde
 copolymer 129674-22-2 158593-28-3 199432-82-1 200808-68-0
 216258-44-5 288620-13-3 288620-15-5 289706-85-0 325143-37-1
 359434-80-3 372968-15-5 387382-45-8 387382-49-2
 398457-05-1
 (alkali-soluble polymer; electron beam- or x-ray resist compns. containing
 onium sulfonates with high sensitivity and resolution)

L18 ANSWER 39 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:368020 HCAPLUS

DOCUMENT NUMBER: 136:393268

TITLE: Positive-working resist compositions containing
sulfonic acid generators

INVENTOR(S): Kodama, Kunihiro; Nishiyama, Fumiyuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002139838	A	20020517	JP 2000-332802	20001031

PRIORITY APPLN. INFO.: JP 2000-332802 20001031
 <--

ED Entered STN: 18 May 2002

AB The compns., which show high sensitivity, high resolution, and improved
 process latitude, and give resist pattern with good rectangular
 profile, contain (a) compds. which generate sulfonic acids having
 alkyl group substituted with ≥ 1 F upon irradiation with actinic ray
 and (b) resins having a repeating unit $[\text{CH}_2\text{CHR}_1(\text{C}_6\text{H}_4\text{OCR}_2\text{R}_3\text{OR})]$ $[\text{R}_1 =$
 $\text{H, alkyl, halo; R}_2, \text{R}_3 = \text{H, alkyl; R} = (\text{un})\text{substituted C}_{\geq 5}$
 $\text{alicyclic hydrocarbyl, (un)substituted C}_{\geq 6} \text{ aryl,}$
 $(\text{un})\text{substituted C}_{\geq 4} \text{ heterocyclyl, (CH}_2\text{)}_n\text{XR}_4$ ($n = 1-3$; $\text{X} =$
 $\text{direct bond, linking group; R}_4 = \text{any group given for R); } \geq 2 \text{ of}$
 $\text{R, R}_2, \text{ and R}_3 \text{ may be bonded together to form a ring}] \text{ which are}$
 $\text{decomposed by acids and show increased soluble in an alkaline developer. The}$
 $\text{compns. may addnl. contain (c) dissoln. inhibitors with mol. weight}$
 $\leq 3000 \text{ which have acid-decomposable group and show increased}$
 $\text{dissoln. rate in an alkaline developer upon action of acids, (d) N-containing}$
 $\text{basic compds. and/or basic onium salts, and (e) F-containing surfactants}$
 $\text{and/or silicone surfactants.}$

IT 287381-58-2P

(pos.-working resist compns. containing fluoroalkanesulfonic acid generators and poly(hydroxystyrenes) having alicyclic or (hetero)aromatic group)

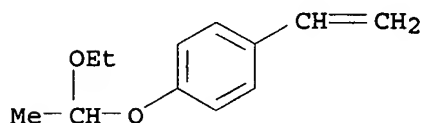
RN 287381-58-2 HCAPLUS

CN 2-Propenoic acid, cyclohexyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

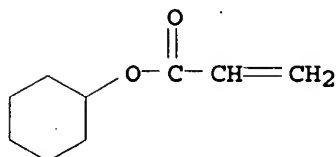
CMF C12 H16 O2



CM 2

CRN 3066-71-5

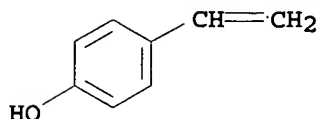
CMF C9 H14 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC. ICM G03F007-039

ICS C08F012-24; C08K005-42; C08L025-18; C08L083-04; G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 102-82-9P, Tri-n-butylamine 108-24-7DP, Acetic anhydride, reaction products with poly(p-hydroxystyrene) ethers 109-53-5DP, Isobutyl vinyl ether, reaction products with Bu acrylate-hydroxystyrene copolymer 926-02-3DP, tert-Butyl vinyl ether, reaction products with poly(hydroxystyrene) and cyclohexaneethanol 3040-44-6P, 1-Piperidineethanol 4442-79-9DP, Cyclohexaneethanol, reaction products with poly(hydroxystyrene) and tert-Bu vinyl ether 24979-70-2DP, VP 8000, reaction products with cyclohexaneethanol,

tert-Bu vinyl ether, and 147625-42-1P, Poly(p-hydroxystyrene)
 tert-butyl carbonate 158593-28-3P, p-(1-Ethoxyethoxy)styrene-p-
 hydroxystyrene copolymer 159296-87-4DP, tert-Butyl
 acrylate-p-vinylphenol copolymer, reaction products with iso-Bu vinyl
 ether 159296-87-4P, tert-Butyl acrylate-p-vinylphenol copolymer
 199432-81-0P 199432-82-1P, p-Hydroxystyrene-p-(1-
 isobutoxyethoxy)styrene copolymer 200808-68-0P, tert-Butyl
 acrylate-p-hydroxystyrene-styrene copolymer 287381-58-2P
 288620-15-5P, p-(1-Benzyloxyethoxy)styrene-p-hydroxystyrene copolymer
 289706-85-0P, p-Acetoxystyrene-p-hydroxystyrene-p-(1-
 phenethyloxyethoxy)styrene copolymer 325143-37-1P,
 p-tert-Butylstyrene-p-[1-(cyclohexylethoxy)ethoxy]styrene-p-
 hydroxystyrene copolymer 326592-04-5P 398457-05-1P 425671-10-9P,
 p-Acetoxystyrene-p-[1-(4-tert-butylcyclohexyl)carboxyethoxy]styrene-p-
 hydroxystyrene copolymer
 (pos.-working resist compns. containing fluoroalkanesulfonic acid
 generators and poly(hydroxystyrenes) having alicyclic or
 (hetero)aromatic group)

L18 ANSWER 40 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:345222 HCAPLUS

DOCUMENT NUMBER: 136:377471

TITLE: Positively working radiation-sensitive resist
 composition with improved coatability

INVENTOR(S): Kanna, Shinichi; Kodama, Kunihiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002131898	A	20020509	JP 2000-327424	20001026

PRIORITY APPLN. INFO.: JP 2000-327424 20001026

OTHER SOURCE(S): MARPAT 136:377471

ED Entered STN: 09 May 2002

AB The composition contains (A) polymers increasing solubility in alkali
 developers

by decomposition with acids, (B) acid generator by irradiation of actinic ray,
 (C) organic basic compds., (D) solvents, and (E) 50-5000 ppm surfactants,
 preferably having fluoroalkyl group in the mol., to get discolored by
 irradiation of actinic ray. The composition prevents generation of standing
 wave.

IT 325143-38-2P 387382-49-2P 422508-78-9P

(pos.-working radiation-sensitive resist composition containing
 fluoroalkyl-substituted discolorable surfactant with improved
 coatability)

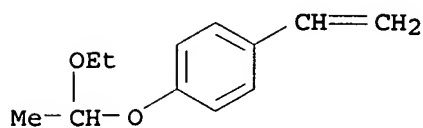
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX
 NAME)

CM 1

CRN 157057-20-0

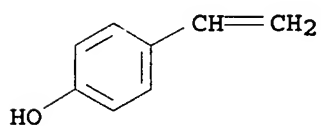
CMF C12 H16 O2



CM 2

CRN 2628-17-3

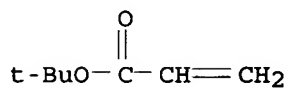
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



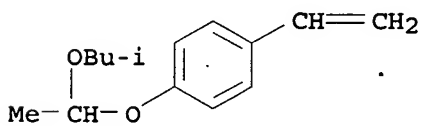
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol
(CA INDEX NAME)

CM 1

CRN 192314-53-7

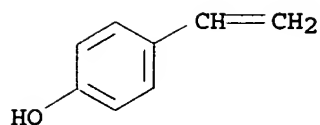
CMF C14 H20 O2



CM 2

CRN 2628-17-3

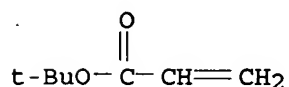
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



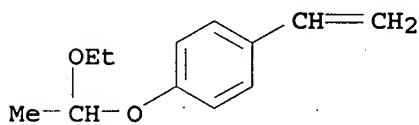
RN 422508-78-9 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
 1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

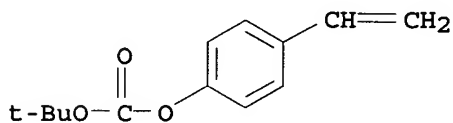
CMF C12 H16 O2



CM 2

CRN 87188-51-0

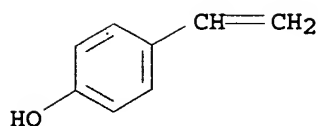
CMF C13 H16 O3



CM 3

CRN 2628-17-3

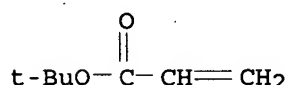
CMF C8 H8 O



CM 4

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
ICS G03F007-004; C08K005-00; C08L101-12; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 109-53-5DP, Isobutyl vinyl ether, reaction products with Bu acrylate-hydroxystyrene copolymer 926-02-3DP, tert-Butyl vinyl ether, reaction products with hydroxystyrene polymer and cyclohexaneethanol 4442-79-9DP, Cyclohexaneethanol, reaction products with hydroxystyrene polymer and Bu vinyl ether 24979-70-2DP, VP 8000, reaction products with Bu vinyl ether and cyclohexaneethanol 121273-79-8P 129674-22-2P, p-(tert-Butoxycarbonyloxy)styrene-p-hydroxystyrene copolymer 158593-28-3P, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer 159296-87-4P, tert-Butyl acrylate-p-vinylphenol copolymer 199432-82-1P, p-Hydroxystyrene-p-(1-isobutoxyethoxy)styrene copolymer 200808-68-0P, tert-Butyl acrylate-p-hydroxystyrene-styrene copolymer 288620-15-5P, p-(1-Benzyloxyethoxy)styrene-p-hydroxystyrene copolymer 325143-38-2P 365971-61-5P 365971-64-8P 365971-70-6P 365971-71-7P 365971-72-8P 376600-58-7P 387382-49-2P 422508-57-4P 422508-61-0P 422508-62-1P 422508-64-3P 422508-65-4P 422508-66-5P 422508-67-6P 422508-71-2P 422508-72-3P 422508-74-5P 422508-76-7P 422508-77-8P 422508-78-9P
(pos.-working radiation-sensitive resist composition containing fluoroalkyl-substituted discolorable surfactant with improved coatability)

L18 ANSWER 41 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:253296 HCAPLUS

DOCUMENT NUMBER: 136:301776

TITLE: Chemical amplification positive working resist material

INVENTOR(S): Hatakeyama, Jun

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002099090	A	20020405	JP 2001-210657	20010711
			<--	
JP 3956088	B2	20070808		
TW 253543	B	20060421	TW 2001-90117553	20010718
			<--	
US 2002042017	A1	20020411	US 2001-907653	20010719
			<--	
US 6869744	B2	20050322		
PRIORITY APPLN. INFO.:			JP 2000-218490	A 20000719
			<--	

ED Entered STN: 05 Apr 2002

AB The chemical amplification pos. working resist material used for electron beam and soft x-ray exposure comprises ≥ 1 hardly alkaline soluble resin having ≥ 2 acid unstable group replacing H of a phenolic OH or carboxy group of an alkaline soluble base polymer, wherein one of the acid unstable group is acetal or ketal group and the other is a tert hydrocarbon group. The chemical amplification pos. working resist material showed excellent stability in vacuum after the exposure.

IT 325143-38-2 338438-44-1

(chemical amplification pos. working resist material)

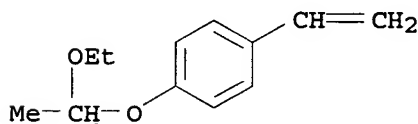
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

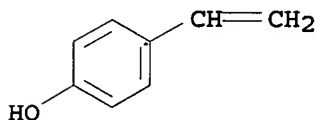
CMF C12 H16 O2



CM 2

CRN 2628-17-3

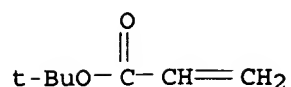
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



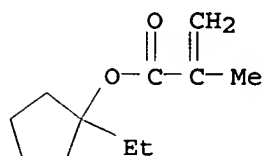
RN 338438-44-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA
INDEX NAME)

CM 1

CRN 266308-58-1

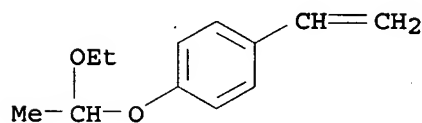
CMF C11 H18 O2



CM 2

CRN 157057-20-0

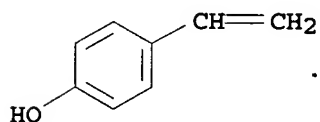
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-039

ICS G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

IT 125325-82-8 158593-28-3 159296-87-4 177034-75-2 199432-81-0

218796-79-3 288620-15-5 301153-46-8 325143-38-2

326925-68-2 338438-44-1 406909-41-9 406909-42-0

406909-43-1 406909-44-2 406909-45-3

(chemical amplification pos. working resist material)

L18 ANSWER 42 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:131256 HCAPLUS
 DOCUMENT NUMBER: 136:191691
 TITLE: Steroid-structured carboxylic acids-generating
 onium salts and positive-working photoresists
 containing such photoacid generators
 INVENTOR(S): Kodama, Kunihiko
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002055442	A	20020220	JP 2000-240060	20000808
<--				
PRIORITY APPLN. INFO.:			JP 2000-240060	20000808
<--				

OTHER SOURCE(S): MARPAT 136:191691
 ED Entered STN: 20 Feb 2002
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Pos. photoresists containing (A) compds. generating strong acid on irradiation, (B) acid-dissociating alkaline developing polymers, and (C) compds.

generating steroid-structured carboxylic acids on irradiation are claimed. Optionally, the compns. also contain (D) dissoln. inhibitors of mol. weight ≤ 3000 and having acid-dissociating groups and showing increased solubility in alkaline developer and may furthermore contain (E) water-soluble alkaline-developing polymers. Sulfonium salts I and II and iodonium salt III (R1-37 = H, C1-4 linear or branched alkyl, C3-8 cyclic alkyl, C1-4 alkoxy, hydroxy, halogen, SR38; R38 = C1-12 linear or branched alkyl, C3-8 cyclic alkyl, C6-14 aryl; X- = carboxylic acid anion having steroid structure) are also claimed. Preferably, the stated onium salts are used as component (C) in the claimed composition. The compns. show high resolution and wide allowance to exposure margin and depth of focus.

IT 387382-49-2P

(steroid-structured acid-generating onium compds. in pos. photoresists showing high resolution)

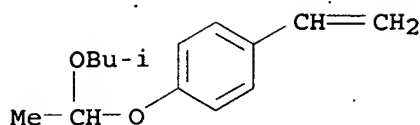
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 192314-53-7

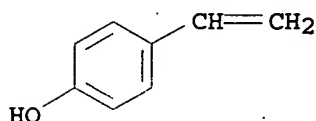
CMF C14 H20 O2



CM 2

CRN 2628-17-3

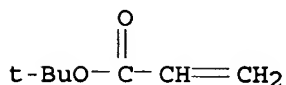
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004
 ICS G03F007-004; C07C025-18; C07C039-367; C07C043-225; C07C323-09;
 C07C381-12; G03F007-039; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 IT 129674-22-2P 159296-87-4P 200808-68-0P 288620-13-3P
 372968-15-5P **387382-49-2P**
 (steroid-structured acid-generating onium compds. in pos.
 photoresists showing high resolution)

L18 ANSWER 43 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:119604 HCAPLUS

DOCUMENT NUMBER: 136:191686

TITLE: Electron beam or x-ray resist composition
 containing sulfonate salt photoacid generator

INVENTOR(S): Kodama, Kunihiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002049155	A	20020215	JP 2000-233216	20000801

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PRIORITY APPLN. INFO.:

JP 2000-233216

20000801

<--

OTHER SOURCE(S): MARPAT 136:191686

ED Entered STN: 15 Feb 2002

AB The composition contains (A) ≥ 1 N-hydroxyimide sulfonate esters and ≥ 1 onium sulfonate salts selected from sulfonium sulfonates and iodonium sulfonates as acid generators by electron beam or x-ray radiation and (B) base polymers selected from (1) polymers having acid-degradable groups to increase alkali developability for pos. working, (2) low-mol.-weight dissoln. inhibitors with mol. weight ≤ 3000 having acid-degradable group to increase dissoln. speed in alkali developeres by acids and water-insol. and alkali-developable polymers for pos. working, and (3) water-insol. and alkali-developable polymers and acid-catalytic crosslinking agents for neg. working. The composition shows high sensitivity and gives high-resolution resist patterns with good post-coating delay (PCD) stability.

IT 387382-49-2

(electron beam or x-ray resist composition containing sulfonate salt photoacid generator)

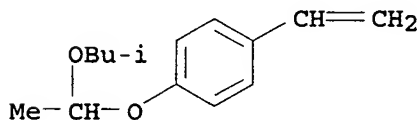
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 192314-53-7

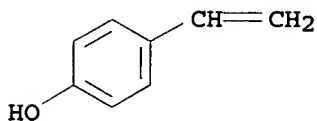
CMF C14 H20 O2



CM 2

CRN 2628-17-3

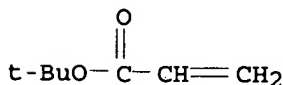
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039
ICS C08K005-00; C08L101-00; G03F007-004; G03F007-032; G03F007-038;
H01L021-027
CC 74-5. (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
IT 24979-69-9, Poly(m-hydroxystyrene) 24979-70-2, VP 15000
27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 129674-22-2
158593-28-3, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer
159296-87-4 199432-82-1 200808-68-0 279244-35-8 279244-37-0
288620-13-3 288620-15-5 289706-85-0 325143-37-1 359434-80-3
372968-15-5 387382-45-8 387382-49-2 398457-05-1
(electron beam or x-ray resist composition containing sulfonate salt
photoacid generator)

L18 ANSWER 44 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:21787 HCAPLUS

DOCUMENT NUMBER: 136:93483

TITLE: Positive-working resist composition

INVENTOR(S): Kodama, Kunihiro; Aogo, Toshiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002006480	A	20020109	JP 2000-188077	20000622

<--

PRIORITY APPLN. INFO.: JP 2000-188077 20000622

<--

OTHER SOURCE(S): MARPAT 136:93483

ED Entered STN: 09 Jan 2002

AB The pos.-working resist composition comprises (a) a resin which decomp. upon contacting an acid, resulting in increasing its solubility in an alkali developer, (b1) ≥ 1 photoacid having ≥ 2 sulfonium cation structure, and (b2) ≥ 1 photoacid having a bis(sulfonyl)diazomethane structure. The title composition increased the solubility discrimination between exposed and nonexposed areas.

IT 387382-49-2P

(resin; resins and photoacids contained in pos.-working resist composition)

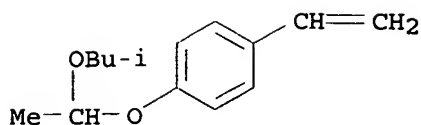
RN 387382-49-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 192314-53-7

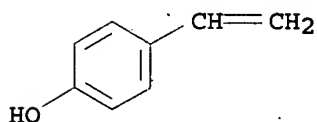
CMF C14 H20 O2



CM 2

CRN 2628-17-3

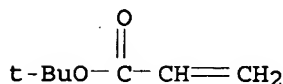
CMF C8 H8 O



CM 3

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-004

ICS G03F007-004; C08F002-44; C08F291-00; C08K005-00; C08K005-16;
C08K005-41; C08L101-02; C09K003-00; H01L021-027; C07C381-12;
C07C381-14

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 35, 38

IT 129674-22-2P 158593-28-3P, p-(1-Ethoxyethoxy)styrene-p-
hydroxystyrene copolymer 159296-87-4P 199432-81-0P 199432-82-1P
200808-68-0P, tert-Butyl acrylate-p-hydroxystyrene-styrene copolymer
288620-15-5P, p-(1-Benzyloxyethoxy)styrene-p-hydroxystyrene copolymer
289706-85-0P, p-Acetoxystyrene-p-(1-benzyloxyethoxy)styrene-p-
hydroxystyrene copolymer 297742-32-6P 372968-15-5P 387382-45-8P
387382-48-1P 387382-49-2P

(resin; resins and photoacids contained in pos.-working resist
composition)

L18 ANSWER 45 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:709843 HCAPLUS

DOCUMENT NUMBER: 135:264558

TITLE: Chemically amplified positive resist composition
and patterning method

INVENTOR(S): Takeda, Takanobu; Watanabe, Jun; Takemura,
Katsuya; Koizumi, Kenji

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 60 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1136885	A1	20010926	EP 2001-302636	20010321
EP 1136885	B1	20070509		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001337457	A	20011207	JP 2001-75477	20010316
TW 228203	B	20050221	TW 2001-90106640	20010321
US 2001035394	A1	20011101	US 2001-814049	20010322
US 6593056	B2	20030715		
PRIORITY APPLN. INFO.:			JP 2000-79414	A 20000322

ED Entered STN: 28 Sep 2001

AB A chemical amplified, pos. resist composition comprises (1) organic solvent,
 (2)

polymer having acid labile groups, (3) photoacid generator, (4) basic compound, and (5) compound containing at least two allyloxy groups of R1R2C=CR3CHR4O (R1,4 = H, C1-12 alkyl; R1 and R3, or R2 and R3 may form a ring) in a mol. The resist composition has a high sensitivity, resolution, dry etching resistance and process adaptability, and is improved in the slimming of a pattern film after development with an aqueous base solution. The resist composition is also applicable to the thermal flow process suited for forming a microsize contact hole pattern for the fabrication of VLSI.

IT 194996-88-8 338438-44-1 338438-45-2

362479-10-5 362479-11-6 362479-12-7

362479-12-7D, ethoxyethyl ether and/or t-Bu carbonate and/or

ethoxypropyl ether and/or t-butoxycarbonyl Me derivs.

(chemical amplified pos. resist composition containing)

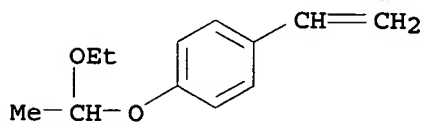
RN 194996-88-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

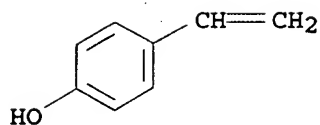
CMF C12 H16 O2



CM 2

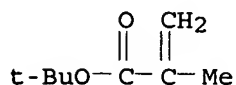
CRN 2628-17-3

CMF C8 H8 O



CM 3

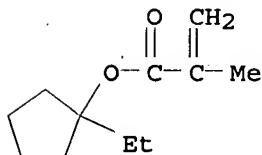
CRN 585-07-9
CMF C8 H14 O2



RN 338438-44-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

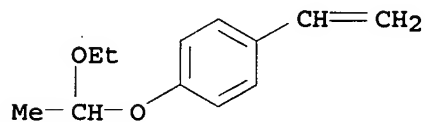
CM 1

CRN 266308-58-1
CMF C11 H18 O2



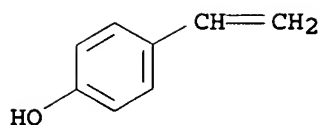
CM 2

CRN 157057-20-0
CMF C12 H16 O2



CM 3

CRN 2628-17-3
CMF C8 H8 O



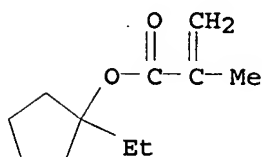
RN 338438-45-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
1,4-bis(ethenyloxy)butane, 1-ethenyl-4-(1-ethoxyethoxy)benzene and
4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

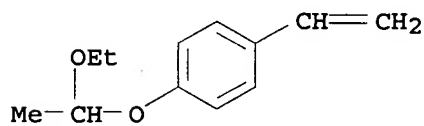
CMF C11 H18 O2



CM 2

CRN 157057-20-0

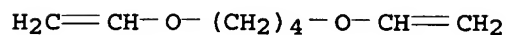
CMF C12 H16 O2



CM 3

CRN 3891-33-6

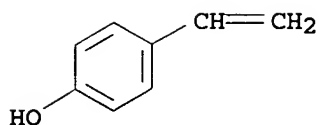
CMF C8 H14 O2



CM 4

CRN 2628-17-3

CMF C8 H8 O



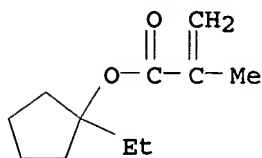
RN 362479-10-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and
 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA
 INDEX NAME)

CM 1

CRN 266308-58-1

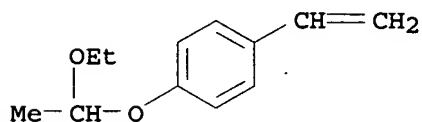
CMF C11 H18 O2



CM 2

CRN 157057-20-0

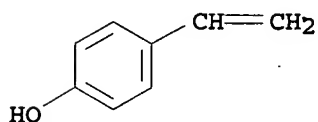
CMF C12 H16 O2



CM 3

CRN 2628-17-3

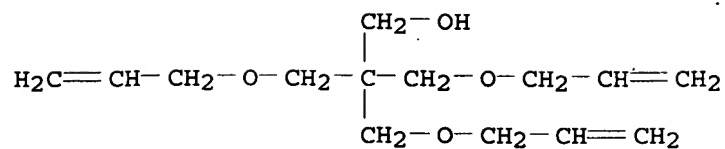
CMF C8 H8 O



CM 4

CRN 1471-17-6

CMF C14 H24 O4



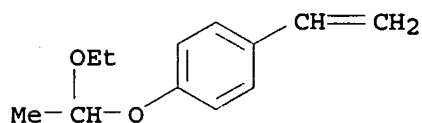
RN 362479-11-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and
 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA
 INDEX NAME)

CM 1

CRN 157057-20-0

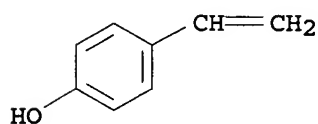
CMF C12 H16 O2



CM 2

CRN 2628-17-3

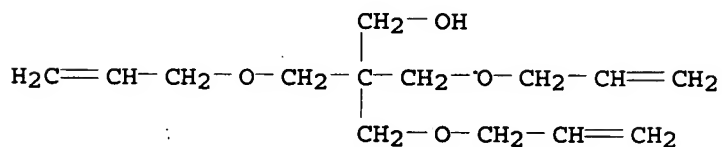
CMF C8 H8 O



CM 3

CRN 1471-17-6

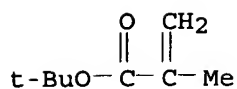
CMF C14 H24 O4



CM 4

CRN 585-07-9

CMF C8 H14 O2



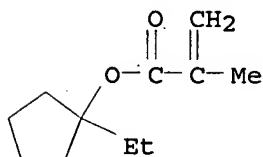
RN 362479-12-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
 1,4-bis(ethenyloxy)butane, 1-ethenyl-4-(1-ethoxyethoxy)benzene,
 4-ethenylphenol and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-
 propanol (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

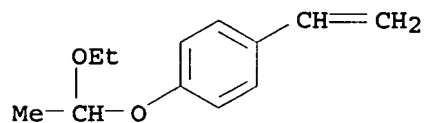
CMF C11 H18 O2



CM 2

CRN 157057-20-0

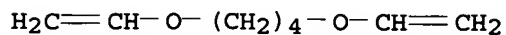
CMF C12 H16 O2



CM 3

CRN 3891-33-6

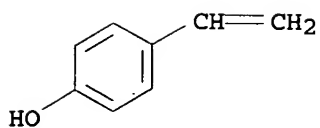
CMF C8 H14 O2



CM 4

CRN 2628-17-3

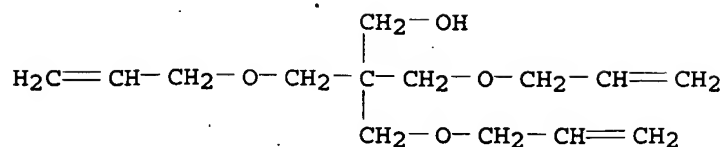
CMF C8 H8 O



CM 5

CRN 1471-17-6

CMF C14 H24 O4



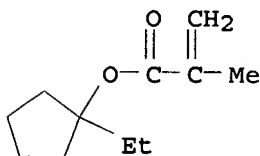
RN 362479-12-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
 1,4-bis(ethenyloxy)butane, 1-ethenyl-4-(1-ethoxyethoxy)benzene,
 4-ethenylphenol and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-
 propanol (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

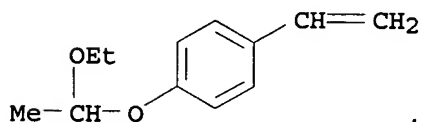
CMF C11 H18 O2



CM 2

CRN 157057-20-0

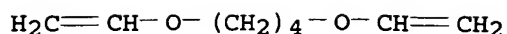
CMF C12 H16 O2



CM 3

CRN 3891-33-6

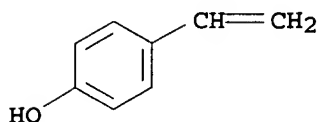
CMF C8 H14 O2



CM 4

CRN 2628-17-3

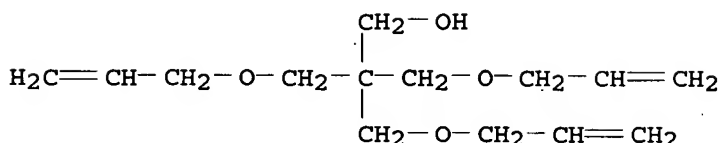
CMF C8 H8 O



CM 5

CRN 1471-17-6

CMF C14 H24 O4



IC ICM G03F007-004

ICS G03F007-039; G03F007-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 76

IT 3235-51-6, Tris(2-methoxyethyl)amine 24979-70-2D,
 Poly(p-hydroxystyrene), ethoxyethyl ether and/or t-Bu carbonate and/or
 ethoxypropyl ether and/or t-butoxycarbonyl Me derivs.
 194996-88-8 326925-52-4 326925-68-2, 1-Ethylcyclopentyl
 methacrylate-p-hydroxystyrene copolymer 326925-71-7
 338438-44-1 338438-45-2 362478-92-0D, ethoxyethyl
 ether and/or t-Bu carbonate and/or ethoxypropyl ether and/or
 t-butoxycarbonyl Me derivs. 362478-93-1D, ethoxyethyl ether and/or
 t-Bu carbonate and/or ethoxypropyl ether and/or t-butoxycarbonyl Me
 derivs. 362478-94-2D, ethoxyethyl ether and/or t-Bu carbonate and/or
 ethoxypropyl ether and/or t-butoxycarbonyl Me derivs. 362478-95-3D,
 ethoxyethyl ether and/or t-Bu carbonate and/or ethoxypropyl ether
 and/or t-butoxycarbonyl Me derivs. 362478-97-5D, ethoxyethyl ether
 and/or t-Bu carbonate and/or ethoxypropyl ether and/or
 t-butoxycarbonyl Me derivs. 362478-98-6 362478-99-7
 362479-00-3D, ethoxypropyl ether or ethoxyethyl ether 362479-01-4
 362479-02-5 362479-03-6 362479-04-7D, ethoxypropyl ether or
 ethoxyethyl ether 362479-05-8D, ethoxypropyl ether or ethoxyethyl
 ether 362479-06-9D, ethoxypropyl ether or ethoxyethyl ether
 362479-07-0D, ethoxypropyl ether or ethoxyethyl ether 362479-08-1D,
 ethoxypropyl ether or ethoxyethyl ether 362479-09-2
 362479-10-5 362479-11-6 362479-12-7
 362479-12-7D, ethoxyethyl ether and/or t-Bu carbonate and/or
 ethoxypropyl ether and/or t-butoxycarbonyl Me derivs. 362479-14-9

362479-15-0 362479-16-1

(chemical amplified pos. resist composition containing)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 46 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:496393 HCAPLUS

DOCUMENT NUMBER: 135:99846

TITLE: Photoresist polymers, their compositions for
resist flow processes, manufacture of their
patterns for formation of contact holes, and
semiconductor devices

INVENTOR(S): Lee, Kun Su; Kim, Jin Su; Kim, Hyung Su; Paik, Ki
Ho

PATENT ASSIGNEE(S): Hyundai Electronics Industries Co., Ltd., S. Korea

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

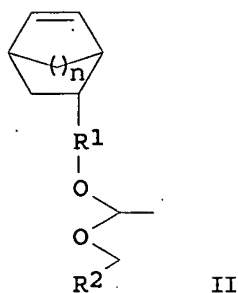
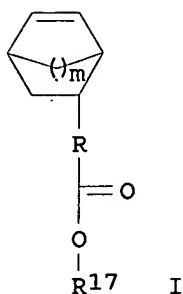
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001188350	A	20010710	JP 2000-335989	20001102
			<--	
KR 2001051383	A	20010625	KR 2000-64615	20001101
			<--	
US 6537724	B1	20030325	US 2000-704265	20001101
			<--	
GB 2360774	A	20011003	GB 2000-26800	20001102
			<--	
GB 2360774	B	20040114		
TW 525041	B	20030321	TW 2000-89123155	20001102
			<--	
PRIORITY APPLN. INFO.:			KR 1999-48075	A 19991102
			<--	
			KR 1999-56545	A 19991210
			<--	

ED Entered STN: 10 Jul 2001

GI



AB The compns. comprise (A) photoresist polymers consisting of (a) copolymers containing $\text{CH}_2\text{:CH}(\text{p-C}_6\text{H}_4\text{OCHMeOCH}_2\text{R}_2)$ or cycloolefin derivs. I and (b) copolymers containing $\text{CH}_2\text{:CR}_8[\text{C}(\text{:O})\text{OR}_{17}]$ or cycloolefin derivs. II [$\text{R}_2 = \text{H}$, (un)substituted C1-10 alkyl, aryl; $\text{R}_8 = \text{H}$, Me; $\text{R}_{17} =$ acid-labile protective group; R , $\text{R}_1 =$ (un)substituted C0-10 alkylene; $m, n = 1, 2$], (B) photoacid generators, and (C) organic solvents. Patterns are manufactured by forming primary photoresist patterns from the compns. and thermally flowing the patterns to form secondary photoresist patterns. The compns. show moderate change in flow sensitivity and no standing wave effects.

IT 348108-54-3P

(photoresists containing polymer blends with improved flow characteristics for formation of contact holes)

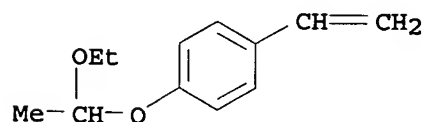
RN 348108-54-3 HCAPLUS

CN 2-Propenoic acid, 2,2-dimethyl-1,3-propanediyl ester, polymer with ethenylbenzene, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

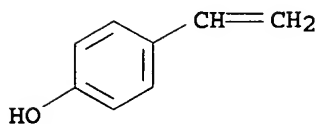
CRN 157057-20-0

CMF C12 H16 O2



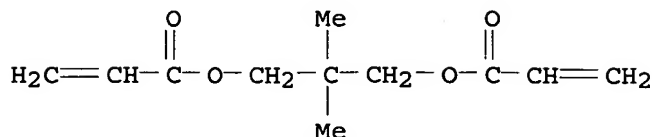
CM 2

CRN 2628-17-3
CMF C8 H8 O



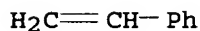
CM 3

CRN 2223-82-7
CMF C11 H16 O4



CM 4

CRN 100-42-5
CMF C8 H8



IC ICM G03F007-039
ICS G03F007-004; G03F007-40; H01L021-027; H01L021-768; H01L021-3065
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76
IT 177034-67-2P 200808-68-0P, tert-Butyl acrylate-4-hydroxystyrene-styrene copolymer 348108-54-3P 348108-57-6P 348108-59-8P 348108-62-3P
(photoresists containing polymer blends with improved flow characteristics for formation of contact holes)

L18 ANSWER 47 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:451196 HCAPLUS

DOCUMENT NUMBER: 135:68548

TITLE: Radiation-sensitive chemically amplified resist composition containing specific copolymer

INVENTOR(S): Nishimura, Yukio; Kobayashi, Eiichi; Shiotani, Takeo; Shimokawa, Tsutomu

PATENT ASSIGNEE(S): JSR Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

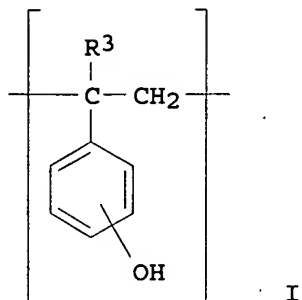
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166474	A	20010622	JP 1999-344911	19991203
			<--	
PRIORITY APPLN. INFO.:			JP 1999-344911	19991203
			<--	

ED Entered STN: 22 Jun 2001
GI



AB The title composition contains a radiation-sensitive acid generator and a copolymer having repeating unit $[-C(R_1)(COOR_2)-CH_2-]$ ($R_1 = H, \text{methyl}; R_2 = C_{>10} \text{ alicyclic}$) and of repeating unit I ($R_3 = H, \text{methyl}$) with $\leq 50\%$ content. The composition, which contains the copolymer having the aforementioned repeating units, shows the decreased effect of the post exposure delay (PED) on the pattern profiles.

IT 345631-91-6P
(radiation active chemical amplified resist composition containing specific copolymer)

RN 345631-91-6 HCAPLUS

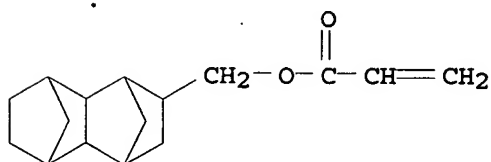
CN 2-Propenoic acid, [decahydro-6(or 7)-hydroxy-1,4:5,8-dimethanonaphthalen-2-yl]methyl ester, polymer with 1,1-dimethylethyl 2-propenoate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 345631-87-0

CMF C16 H22 O3

CCI IDS

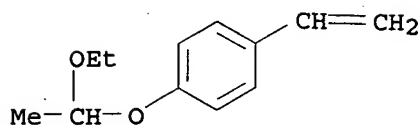


D1-OH

CM 2

CRN 157057-20-0

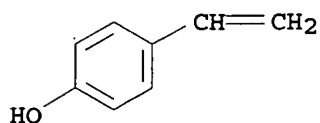
CMF C12 H16 O2



CM 3

CRN 2628-17-3

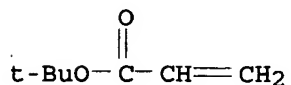
CMF C8 H8 O



CM 4

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-038

ICS C08L033-06; G03F007-004; H01L021-027; C08L025-18

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 200808-68-0P, 4-Hydroxystyrene-styrene-tert-butyl acrylate copolymer

345348-83-6P 345348-84-7P 345348-85-8P 345631-88-1P

345631-89-2P 345631-90-5P 345631-91-6P

(radiation active chemical amplified resist composition containing specific copolymer)

L18 ANSWER 48 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:356328 HCAPLUS

DOCUMENT NUMBER: 134:346477

TITLE: Chemically amplified positive resist composition and patterning method

INVENTOR(S): Takemura, Katsuya; Koizumi, Kenji; Kaneko, Tatsushi; Sakurada, Toyohisa

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 53 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1099983	A1	20010516	EP 2000-310001	20001110
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001142199	A	20010525	JP 1999-323332	19991112
<--				
JP 3755571	B2	20060315		
TW 520467	B	20030211	TW 2000-89123870	20001110
<--				
US 6511785	B1	20030128	US 2000-709629	20001113
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PRIORITY APPLN. INFO.:			JP 1999-323332	A 19991112
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ED Entered STN: 18 May 2001

AB The invention relates to a chemical-amplified pos. resist composition for forming a contact hole pattern by the thermal flow process. A method for forming a contact hole pattern using a chemical-amplified pos. resist composition comprising a polymer as the base resin involves the thermal flow step of heat treating the contact hole pattern for further reducing the size of contact holes. A chemical-amplified pos. resist composition comprising a base resin and a compound containing two to six functional groups, specifically alkenyloxy, acetal and ortho-ester groups in the mol. is suitable for forming a contact hole pattern by the thermal flow process. The invention also relates to a method for forming a microsize contact hole pattern in the manufacture of VLSI.

IT 338438-44-1 338438-45-2

(chemical-amplified pos. resist composition comprising base resin and suitable for forming contact-hole pattern by thermal flow in VLSI manufacturing and containing)

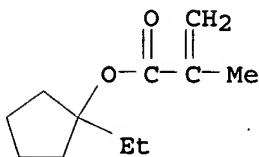
RN 338438-44-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

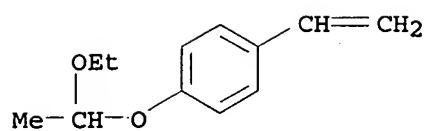
CMF C11 H18 O2



CM 2

CRN 157057-20-0

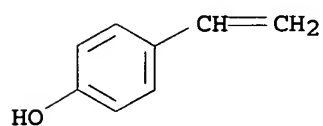
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



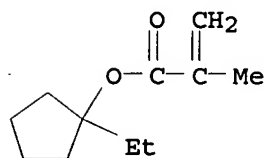
RN 338438-45-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
1,4-bis(ethenyloxy)butane, 1-ethenyl-4-(1-ethoxyethoxy)benzene and
4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

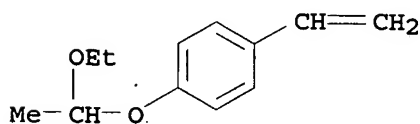
CMF C11 H18 O2



CM 2

CRN 157057-20-0

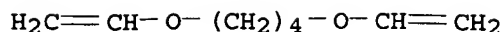
CMF C12 H16 O2



CM 3

CRN 3891-33-6

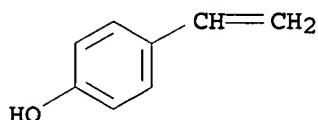
CMF C8 H14 O2



CM 4

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-039

ICS G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 24979-70-2D, acetals and esters 147625-42-1D, acetals 150746-92-2
326925-68-2 326925-71-7 338438-44-1 338438-45-2

(chemical-amplified pos. resist composition comprising base resin and suitable for forming contact-hole pattern by thermal flow in VLSI manufacturing and containing)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 49 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:288865 HCAPLUS

DOCUMENT NUMBER: 134:318681

TITLE: Cyclic siloxane-substituted polymer, photoresist
material containing the polymer, and patterning
using the photoresistINVENTOR(S): Hatakeyama, Jun; Kaneo, Takeshi; Nakajima, Atsuo;
Hasegawa, Koushi; Kubota, Toru; Tonomura, Yoichi

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

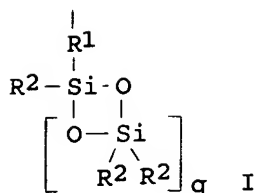
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001114835	A	20010424	JP 1999-300093	19991021
			<--	
JP 3736606	B2	20060118		
PRIORITY APPLN. INFO.:			JP 1999-300093	19991021
			<--	

ED Entered STN: 24 Apr 2001

GI



AB The polymer is that substituted with cyclic siloxane group I ($R^1 =$ C1-20 alkylene, phenylene; $R^2 =$ C1-20 alkyl, haloalkyl, C6-20 aryl; $2 \leq q \leq 30$). The chemical amplified pos.-working photoresist material contains the polymer, an acid-generating agent, and an organic solvent. The material is applied on an organic film, baked, irradiated through a photomask, optionally baked, and developed by an aqueous alkali solution for dissolving the irradiated portion then the exposed organic film is subjected to O plasma etching for forming a pattern. The photoresist, showing good resistance to O plasma etching, is suitable for fine patterning in manufacture of ultralarge scale integrated circuit.

IT 335316-96-6 335316-97-7 335316-99-9
335317-01-6 335317-03-8

(cyclic siloxane-substituted polymer for chemical amplified pos.-working photoresist with oxygen plasma etching resistance)

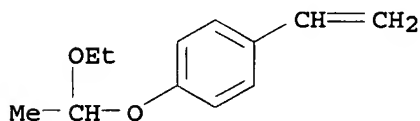
RN 335316-96-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(2,4,4,6,6-pentamethylcyclotrisiloxan-2-yl)propyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

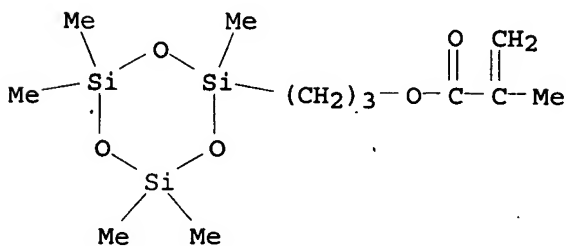
CMF C12 H16 O2



CM 2

CRN 107715-82-2

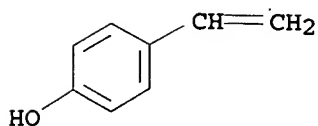
CMF C12 H26 O5 Si3



CM 3

CRN 2628-17-3

CMF C8 H8 O



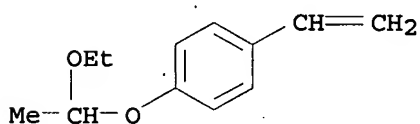
RN 335316-97-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(2,4,4,6,6,8,8-heptamethylcyclotetrasiloxan-2-yl)propyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

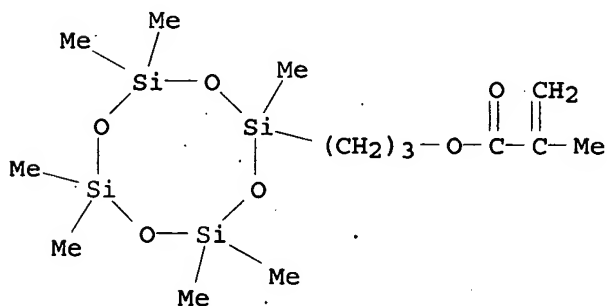
CMF C12 H16 O2



CM 2

CRN 110867-24-8

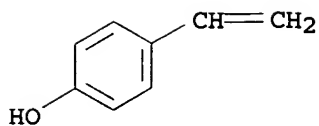
CMF C14 H32 O6 Si4



CM 3

CRN 2628-17-3

CMF C8 H8 O



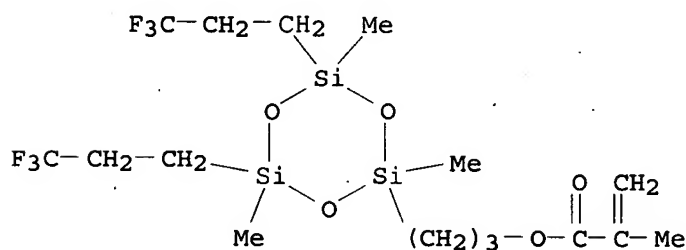
RN 335316-99-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[2,4,6-trimethyl-4,6-bis(3,3,3-trifluoropropyl)cyclotrisiloxan-2-yl]propyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 335316-98-8

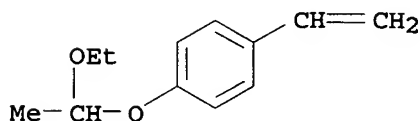
CMF C16 H28 F6 O5 Si3



CM 2

CRN 157057-20-0

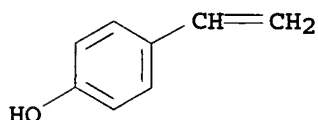
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



RN 335317-01-6 HCAPLUS

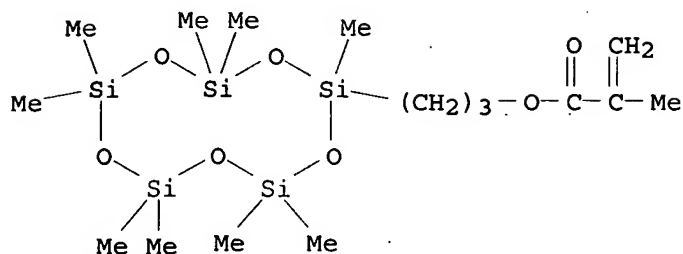
CN 2-Propenoic acid, 2-methyl-, 3-(2,4,4,6,6,8,8,10,10-nonamethylcyclopentasiloxan-2-yl)propyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA

INDEX NAME)

CM 1

CRN 335317-00-5

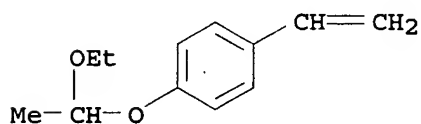
CMF C16 H38 O7 Si5



CM 2

CRN 157057-20-0

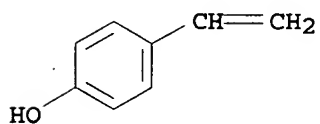
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



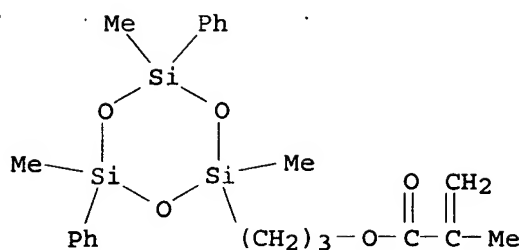
RN 335317-03-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(2,4,6-trimethyl-4,6-diphenylcyclotrisiloxan-2-yl)propyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 335317-02-7

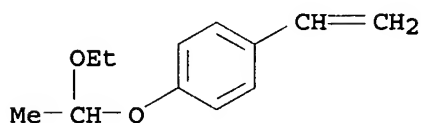
CMF C22 H30 O5 Si3



CM 2

CRN 157057-20-0

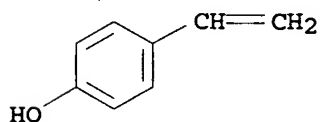
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM C08F030-08
 ICS C08F008-00; C08F212-14; C08F220-18; G03F007-004; G03F007-039;
 G03F007-075; G03F007-40; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38, 76

IT 335316-96-6 335316-97-7 335316-99-9
 335317-01-6 335317-03-8 335317-04-9 335317-05-0
 335317-07-2 335317-08-3 335317-10-7
 (cyclic siloxane-substituted polymer for chemical amplified
 pos.-working photoresist with oxygen plasma etching resistance)

L18 ANSWER 50 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:98663 HCAPLUS

DOCUMENT NUMBER: 134:170820

TITLE: Positive-working silicone-containing
 photosensitive compositions

INVENTOR(S): Yasunami, Shoichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001033974	A	20010209	JP 1999-202179	19990715
<--				
PRIORITY APPLN. INFO.:			JP 1999-202179	19990715
<--				

ED Entered STN: 09 Feb 2001
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compns. contain (a) alkaline-soluble and water-insol. polymer comprising of I and/or II (X = COR, CH(OH)R, carboxyl; R = H, (un)substituted hydrocarbon; R1-5 = OH, (un)substituted (cyclo)alkyl, alkoxy, alkenyl, aralkyl, Ph; Y = alkyl, alkoxy, siloxyl, R0 = H, halogen, (un)substituted aliphatic or aromatic hydrocarbon; l, m, n, q = 0, pos. number; p = pos. number), (b) compds. generating acid on irradiation of active ray or radiant ray, (c) polymers containing acid-decomposable groups and showing increase of solubility to alkaline developer on reaction with acid, and (d) Si-containing nonpolymeric compound containing acid-decomposable groups and showing increase of solubility to alkaline developer on reaction with acid. Far UV photoresists with high sensitivity and resolution are obtained.

IT 325143-38-2

(pos.-working silicon-containing photoresists for micropattern formation in semiconductor device fabrication)

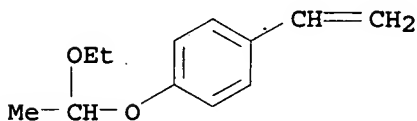
RN 325143-38-2 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

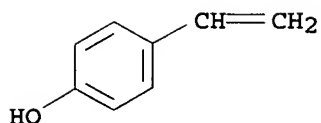
CMF C12 H16 O2



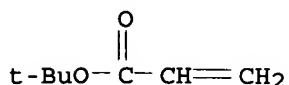
CM 2

CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 1663-39-4
CMF C7 H12 O2

IC ICM G03F007-075
ICS C08L083-06; G03F007-039; G03F007-36
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 51350-55-1D, Phenylsilsesquioxane, acetylated 157374-41-9D,
Phenylsilsesquioxane, acetylated 177080-68-1 196709-91-8,
4-Hydroxystyrene-4(1-tert-butoxyethoxy)styrene copolymer 199432-82-1
216308-45-1 279244-37-0 280566-60-1 288620-13-3 289706-85-0
325143-37-1 325143-38-2 325143-39-3 325143-40-6
325143-41-7
(pos.-working silicon-containing photoresists for micropattern formation in semiconductor device fabrication)

L18 ANSWER 51 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:876841 HCAPLUS
DOCUMENT NUMBER: 134:49216
TITLE: Agent for reducing substrate dependence of resist
INVENTOR(S): Urano, Fumiyoshi; Katano, Naoki; Kiryu, Tomoko
PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 52 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1059563	A1	20001213	EP 2000-112206	20000607
EP 1059563	B1	20060809		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TW 502133	B	20020911	TW 2000-89109987	20000524
JP 2001174982	A	20010629	JP 2000-161501	20000531
CN 1278076	A	20001227	CN 2000-122256	20000609
US 6586152	B1	20030701	US 2000-592851	20000612

PRIORITY APPLN. INFO.:

JP 1999-163191

A 19990610

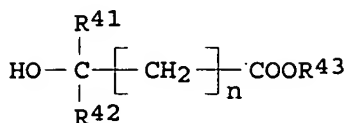
JP 1999-285662

A 19991006

OTHER SOURCE(S): MARPAT 134:49216

ED Entered STN: 15 Dec 2000

GI



I

AB The present invention relates to an agent for reducing substrate dependence useful as an ingredient of a resist composition used for preparation of semiconductor devices and the like, which comprises a compound I (R41 = H, or Me; R42 = H, Me, Et, or Ph group; R45 = a straight chained, branched or cyclic C1-6 alkyl group; and n = 0, or 1).

IT 194996-88-8 287381-58-2

(agent for reducing substrate dependence of resist)

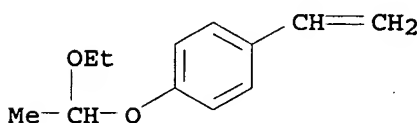
RN 194996-88-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

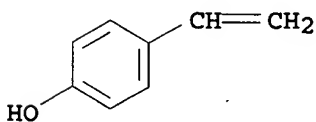
CMF C12 H16 O2



CM 2

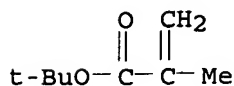
CRN 2628-17-3

CMF C8 H8 O



CM 3

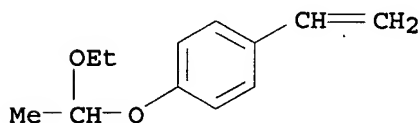
CRN 585-07-9
CMF C8 H14 O2



RN 287381-58-2 HCAPLUS
CN 2-Propenoic acid, cyclohexyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

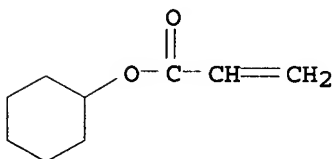
CM 1

CRN 157057-20-0
CMF C12 H16 O2



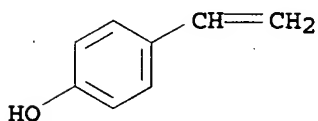
CM 2

CRN 3066-71-5
CMF C9 H14 O2



CM 3

CRN 2628-17-3
CMF C8 H8 O



IC ICM G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 96-35-5, Methyl glycolate 97-64-3, Ethyl lactate 102-82-9,
Tri-n-butylamine 121-44-8, Triethylamine, uses 623-50-7, Ethyl
glycolate 1116-76-3, Tri-n-octylamine 2052-49-5,

Tetra-n-butylammonium hydroxide 2420-27-1 5405-41-4, Ethyl
 3-hydroxybutyrate 11105-01-4, Silicon nitride oxide 12033-89-5,
 Silicon nitride, uses 13891-29-7 14159-45-6 19293-63-1,
 Dicyclohexylmethylaniline 25583-20-4, Titanium nitride 52089-54-0,
 Ethyl 2-hydroxybutyrate 84540-57-8, Propyleneglycol monomethylether
 acetate 123589-22-0 138529-81-4, Bis(cyclohexylsulfonyl)diazometha
 ne 138529-83-6 138529-84-7, Bis(1,1-dimethylethylsulfonyl)diazomet
 hane 151225-43-3 158593-28-3 171429-60-0, p-1-
 Ethoxyethoxystyrene-p-tert-butoxystyrene-p-hydroxystyrene copolymer
 177034-75-2 194996-88-8 249890-04-8 287381-51-5
 287381-58-2

(agent for reducing substrate dependence of resist)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L18 ANSWER 52 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:876779 HCAPLUS

DOCUMENT NUMBER: 134:49215

TITLE: A resist composition

INVENTOR(S): Hujie, Hirotoishi; Maesawa, Tsuneaki; Mori,
 Yasuyoshi

PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 39 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1059314	A1	20001213	EP 2000-112208	20000607
EP 1059314	B1	20041222		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TW 552475	B	20030911	TW 2000-89110449	20000530
JP 2001151824	A	20010605	JP 2000-161500	20000531
SG 85188	A1	20011219	SG 2000-3078	20000602
US 6432608	B1	20020813	US 2000-589770	20000609
US 2003039920	A1	20030227	US 2002-178239	20020625
US 6716573	B2	20040406		
PRIORITY APPLN. INFO.:			JP 1999-162540	A 19990609
			JP 1999-259338	A 19990913
			US 2000-589770	A3 20000609

ED Entered STN: 15 Dec 2000

AB This invention relates to a polymer capable of forming an ultra-fine
 pattern with excellent rectangular shape in a silylated surface
 resolution process using a chemical amplified type resist composition as single
 layer or the most upper layer among multiple layers and to a resist
 composition using the polymer. The said polymer and resist composition are

useful in a silylated surface resolution process, and by conducting the silylated surface resolution process using the said resist composition, contrast of silylation becomes higher and it becomes possible to obtain ultra-fine pattern regardless of the kind of exposure energy.

IT 313065-79-1 313065-82-6 313065-87-1

(resist composition)

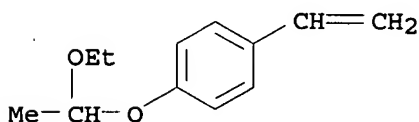
RN 313065-79-1 HCAPLUS

CN 2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

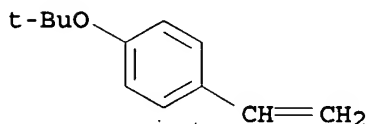
CMF C12 H16 O2



CM 2

CRN 95418-58-9

CMF C12 H16 O

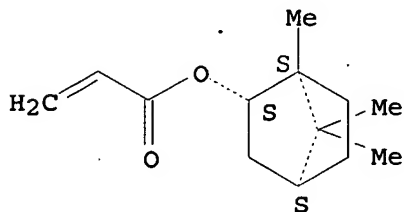


CM 3

CRN 5888-33-5

CMF C13 H20 O2

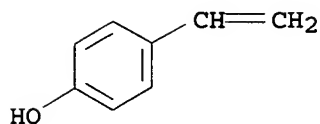
Relative stereochemistry.



CM 4

CRN 2628-17-3

CMF C8 H8 O



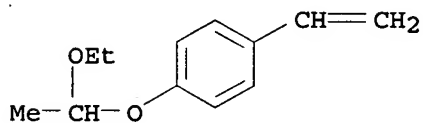
RN 313065-82-6 HCAPLUS

CN 2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and 2-(4-ethenylphenoxy)tetrahydro-2H-pyran (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

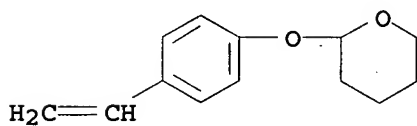
CMF C12 H16 O2



CM 2

CRN 65409-15-6

CMF C13 H16 O2

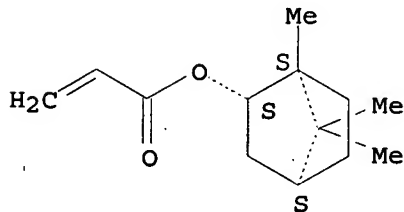


CM 3

CRN 5888-33-5

CMF C13 H20 O2

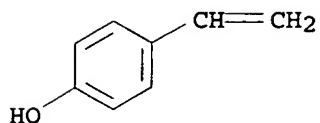
Relative stereochemistry.



CM 4

CRN 2628-17-3

CMF C8 H8 O



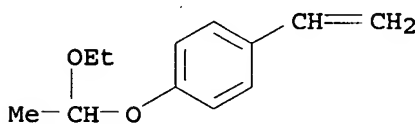
RN 313065-87-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
ethenylbenzene, 1-ethenyl-4-(1-ethoxyethoxy)benzene and
4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

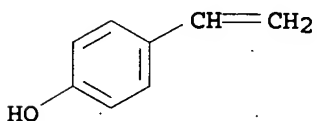
CMF C12 H16 O2



CM 2

CRN 2628-17-3

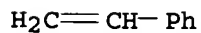
CMF C8 H8 O



CM 3

CRN 100-42-5

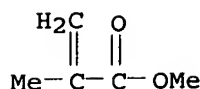
CMF C8 H8



CM 4

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08F212-14
ICS C08F008-00; G03F007-039; G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
IT 171429-60-0 177034-67-2 177034-74-1 313065-78-0,
p-tert-Butoxycarbonyloxy styrene-p-1-(ethoxyethoxy) styrene-methyl
methacrylate copolymer 313065-79-1 313065-80-4
313065-82-6 313065-85-9 313065-87-1
(resist composition)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 53 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:585594 HCAPLUS
DOCUMENT NUMBER: 133:200844
TITLE: Positive-working photoresist composition
containing polymer having sulfonate group
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000231194	A	20000822	JP 1999-240600	19990826
			<--	
JP 3995369	B2	20071024		
KR 2000047927	A	20000725	KR 1999-55067	19991206
			<--	
US 6576392	B1	20030610	US 1999-456827	19991206
			<--	
PRIORITY APPLN. INFO.:			JP 1998-347193	A 19981207
			<--	
			JP 1999-30209	A 19990208
			<--	
			JP 1999-240600	A 19990826
			<--	

ED Entered STN: 23 Aug 2000

AB The title photoresist composition contains a compound which generates an acid by irradiation with activating ray or radiation and a resin which contains a repeating unit having SO₂OR group [R = alkyl, cycloalkyl, alkenyl (these groups may be substituted)] and of which the dissoln. rate to alkaline developing solns. increases by the action of acid. The composition shows high sensitivity toward far UV rays, especially KrF or ArF excimer laser beams and good developability and provides high resolution patterns with improved coarse-dense dependence.

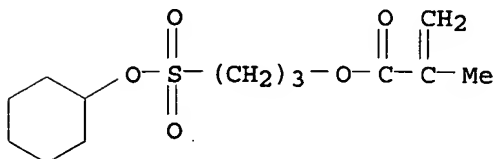
IT 289040-31-9D, hydrolyzed
(photoresist composition containing alkali-soluble polymer with sulfonate

group)
 RN 289040-31-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-[(cyclohexyloxy)sulfonyl]propyl ester,
 polymer with 1-[1-(1,1-dimethylethoxy)ethoxy]-4-ethenylbenzene and
 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 215958-04-6

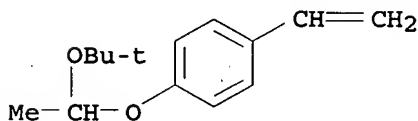
CMF C13 H22 O5 S



CM 2

CRN 169811-45-4

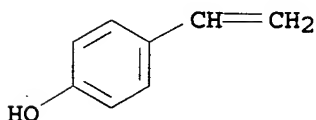
CMF C14 H20 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-039

ICS . C08F012-30; C08F020-38; C08F020-56; G03F007-004; G03F007-027;
 H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

Section cross-reference(s): 38

IT 66003-78-9, Triphenylsulfonium triflate 220930-80-3 258341-99-0
 289040-03-5D, hydrolyzed 289040-04-6D, hydrolyzed 289040-06-8D,
 hydrolyzed 289040-08-0D, hydrolyzed 289040-09-1D, hydrolyzed
 289040-11-5D, hydrolyzed 289040-13-7D, hydrolyzed 289040-16-0D,
 hydrolyzed 289040-19-3D, hydrolyzed 289040-20-6D, hydrolyzed
 289040-22-8D, hydrolyzed 289040-24-0D, hydrolyzed 289040-25-1D,
 hydrolyzed 289040-27-3D, hydrolyzed 289040-30-8D, hydrolyzed
 289040-31-9D, hydrolyzed 289040-33-1D, hydrolyzed

289040-34-2D, hydrolyzed 289040-37-5D, hydrolyzed 289040-40-0D,
 hydrolyzed 289040-42-2D, hydrolyzed 289040-44-4D, hydrolyzed
 289040-46-6D, hydrolyzed 289040-48-8D, hydrolyzed 289040-50-2D,
 hydrolyzed 289040-52-4D, hydrolyzed 289040-56-8D, hydrolyzed
 289040-58-0 289040-59-1 289040-60-4 289040-61-5 289040-63-7
 289040-64-8 289040-66-0 289040-68-2 289040-70-6 289040-72-8
 289045-64-3 289045-67-6 289045-68-7 289045-69-8 289045-70-1
 (photoresist composition containing alkali-soluble polymer with sulfonate
 group)

L18 ANSWER 54 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:534910 HCAPLUS

DOCUMENT NUMBER: 133:157678

TITLE: Resist composition

INVENTOR(S): Urano, Fumiyoshi; Fujie, Hirotoshi; Takeyama,
 Naoki; Ichikawa, Koji

PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd, Japan;
 Sumitomo Chemical Co., Ltd.

SOURCE: Eur. Pat. Appl., 99 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1024406	A1	20000802	EP 2000-300581	20000126
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TW 277830	B	20070401	TW 2000-89101076	20000124
<--				
JP 2000284482	A	20001013	JP 2000-15401	20000125
<--				
JP 3757731	B2	20060322		
US 6656660	B1	20031202	US 2000-492389	20000127
<--				
PRIORITY APPLN. INFO.:			JP 1999-20450	A 19990128
<--				

OTHER SOURCE(S): MARPAT 133:157678

ED Entered STN: 04 Aug 2000

AB The invention relates to a resist composition used in production of semiconductor elements, etc., and to a resist composition used in formation of a pos. type pattern using deep UV light having 300 nm or lower wavelength, e. g., KrF excimer light as an exposure energy source. A resist composition comprising (a) ≥ 2 kinds of polymers which become alkali-soluble by the action of an acid, (b) as a photoacid generator, a combination of an alkyl-sulfonyl diazomethane compound and a triaryl-sulfonium aryl-sulfonate compound or a diaryl-iodonium aryl-sulfonate compound, and (c) a solvent is excellent as a chemical amplified resist composition to give excellent pattern shape and very fine line-and-space, particularly when exposed to lights having a wavelength of 300 nm or less.

IT 287381-58-2P 287381-59-3P 287381-60-6P

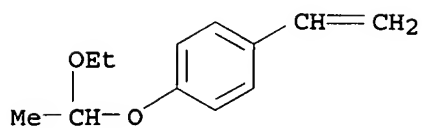
(preparation of polymer for photoresist composition for KrF laser and UV light exposure)

RN 287381-58-2 HCAPLUS

CN 2-Propenoic acid, cyclohexyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

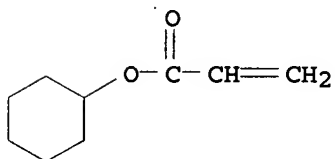
CM 1

CRN 157057-20-0
CMF C12 H16 O2



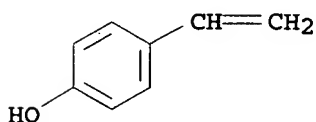
CM 2

CRN 3066-71-5
CMF C9 H14 O2



CM 3

CRN 2628-17-3
CMF C8 H8 O

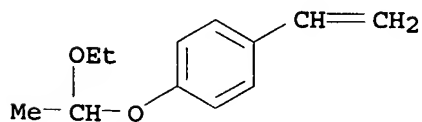


RN 287381-59-3 HCAPLUS

CN 2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

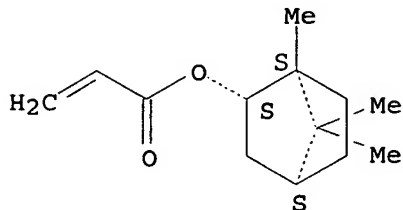
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CM 2

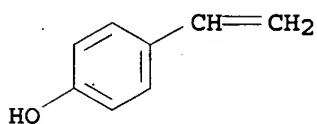
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CMF C13 H20 O2

Relative stereochemistry.



CM 3

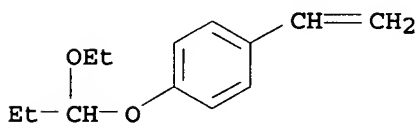
CRN 2628-17-3
CMF C8 H8 O



RN 287381-60-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with
1-ethenyl-4-(1-ethoxypropoxy)benzene and 4-ethenylphenol (9CI) (CA
INDEX NAME)

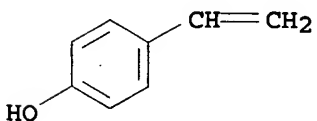
CM 1

CRN 192314-49-1
CMF C13 H18 O2

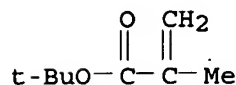


CM 2

CRN 2628-17-3
CMF C8 H8 O



CM 3

CRN 585-07-9
CMF C8 H14 O2

IC ICM G03F007-039
ICS G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT 123589-22-0P 125325-82-8P, p-(Tetrahydropyranyloxy)styrene-p-hydroxystyrene copolymer 129674-22-2P, p-Hydroxystyrene-p-tert-butoxycarbonyloxystyrene copolymer 158593-28-3P 171429-60-0P 171429-61-1P, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene-p-methylstyrene copolymer 177034-67-2P, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene-styrene copolymer 177034-68-3P 177034-74-1P, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene-p-tetrahydropyranyloxystyrene copolymer 177034-75-2P 177034-76-3P 192314-50-4P 192314-56-0P 194996-90-2P 199432-82-1P 287381-51-5P 287381-52-6P 287381-53-7P 287381-54-8P 287381-55-9P 287381-56-0P 287381-57-1P 287381-58-2P 287381-59-3P 287381-60-6P 287381-61-7P
(preparation of polymer for photoresist composition for KrF laser and UV light exposure)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 55 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:367047 HCAPLUS

DOCUMENT NUMBER: 133:18002

TITLE: Ester monomers, polymers, resist compositions and patterning process

INVENTOR(S): Kinsho, Takeshi; Nishi, Tsunehiro; Kurihara, Hideshi; Hasegawa, Koji; Watanabe, Takeru; Watanabe, Osamu; Nakashima, Mutsuo; Takeda, Takanobu; Hatakeyama, Jun

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 65 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1004568	A2	20000531	EP 1999-308687	19991102
EP 1004568	A3	20010228		
EP 1004568	B1	20060125		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000336121	A	20001205	JP 1999-307148	19991028

KR 2000035130	A	20000626	KR 1999-47904	19991101
			<--	
US 6312867	B1	20011106	US 1999-431139	19991101
			<--	
TW 228504	B	20050301	TW 1999-88118985	19991101
			<--	
JP 2004062175	A	20040226	JP 2003-168885	20030613
			<--	
JP 3783780	B2	20060607		
JP 2004124082	A	20040422	JP 2003-208773	20030826
			<--	
JP 3786206	B2	20060614		
PRIORITY APPLN. INFO.:			JP 1998-312533	A 19981102
			<--	
			JP 1999-75355	A 19990319
			<--	
			JP 1999-307148	A3 19991028
			<--	
			JP 2003-168885	A3 20030613
			<--	

ED Entered STN: 02 Jun 2000

AB An ester compound having an exo-form 2-alkylbicyclo[2.2.1]heptan-2-yl group as the protective group is provided as well as a polymer comprising units of the ester compound. The polymer is used as a base resin to formulate a resist composition having a higher sensitivity, resolution and etching resistance than conventional resist compns. A polymer was prepared from 8-ethyltricyclo[5.2.1.0^{2,6}]decan-8-yl methacrylate and 5-methyl-2-oxoxolan-5-yl methacrylate.

IT 271599-48-5P 271599-50-9P 271599-52-1P

(ester monomers, polymers, resist compns. and patterning process)

RN 271599-48-5 HCAPLUS

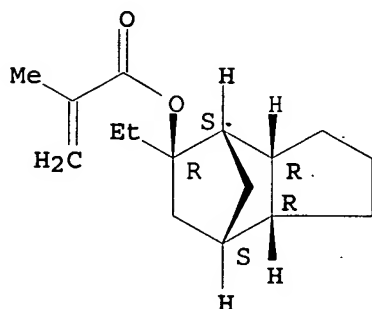
CN 2-Propenoic acid, 2-methyl-, (3aR,4S,5R,7S,7aR)-5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, rel-, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 271598-65-3

CMF C16 H24 O2

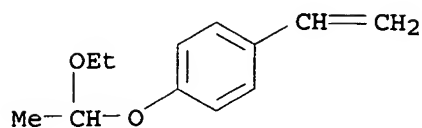
Relative stereochemistry.



CM 2

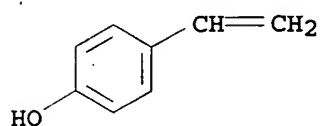
CRN 157057-20-0

CMF C12 H16 O2



CM 3

CRN 2628-17-3
CMF C8 H8 O

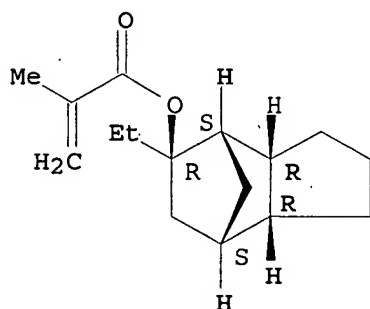


RN 271599-50-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (3aR,4S,5R,7S,7aR)-5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, rel-, polymer with 1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

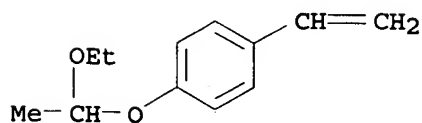
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CMF C16 H24 O2

Relative stereochemistry.



CM 2

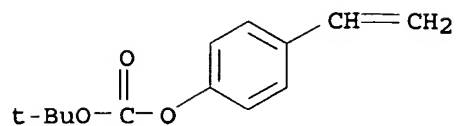
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CMF C12 H16 O2



CM 3

CRN 87188-51-0

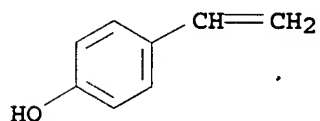
CMF C13 H16 O3



CM 4

CRN 2628-17-3

CMF C8 H8 O



RN 271599-52-1 HCAPLUS

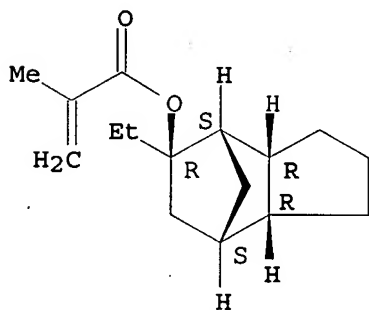
CN 2-Propenoic acid, 2-methyl-, (3aR,4S,5R,7S,7aR)-5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, rel-, polymer with 1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxypropoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 271598-65-3

CMF C16 H24 O2

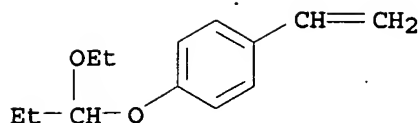
Relative stereochemistry.



CM 2

CRN 192314-49-1

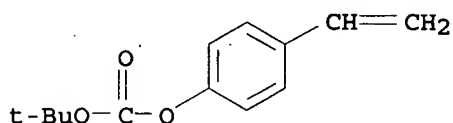
CMF C13 H18 O2



CM 3

CRN 87188-51-0

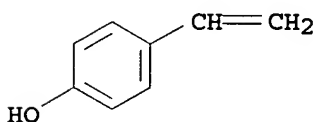
CMF C13 H16 O3



CM 4

CRN 2628-17-3

CMF C8 H8 O



IC ICM C07C069-54

ICS G03F007-039; C08F020-06

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

IT	155040-27-0P	177034-75-2P	195154-78-0P	195154-83-7P
	258871-96-4P	271598-71-1P	271598-72-2P	271598-73-3P
	271598-74-4P	271598-75-5P	271598-76-6P	271598-78-8P
	271598-81-3P	271598-84-6P	271598-86-8P	271598-89-1P
	271598-91-5P	271598-94-8P	271598-97-1P	271599-00-9P
	271599-03-2P	271599-06-5P	271599-09-8P	271599-11-2P
	271599-14-5P	271599-16-7P	271599-18-9P	271599-21-4P
	271599-24-7P	271599-26-9P	271599-28-1P	271599-30-5P
	271599-32-7P	271599-33-8P	271599-34-9P	271599-35-0P
	271599-36-1P	271599-37-2P	271599-38-3P	271599-39-4P
	271599-40-7P	271599-41-8P	271599-42-9P	271599-43-0P
	271599-44-1P	271599-45-2P	271599-46-3P	271599-47-4P
	271599-48-5P	271599-49-6P	271599-50-9P	
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	271599-60-1P	271599-61-2P	271779-09-0P	271779-10-3P
	271779-11-4P	271779-12-5P	271779-13-6P	271779-14-7P
	271779-15-8P			

(ester monomers, polymers, resist compns. and patterning process)

L18 ANSWER 56 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:658546 HCAPLUS

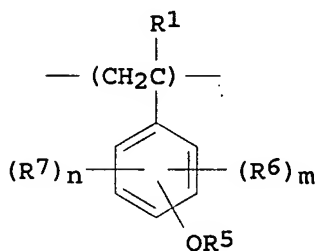
DOCUMENT NUMBER: 131:293308

TITLE: Positively working photoresist composition

INVENTOR(S): containing acid-generating compound
 Aogo, Toshiaki; Mizutani, Kazuyoshi; Tan, Shiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11282163	A	19991015	JP 1998-79458	19980326
			<--	
PRIORITY APPLN. INFO.:			JP 1998-79458	19980326
			<--	

ED Entered STN: 15 Oct 1999
 GI



AB The material contains a compound generating acid under exposure to active lights or radioactive rays and a resin with repeating units I and [CH₂C(R₁)CO₂CR₂R₃R₄] [R₁ = H, Me; R₂, R₃ = H, (substituted) alkyl, (substituted) aryl; R₄ = cycloalkyl, alkenyl, alkynyl, aralkyl, aryl, where they may be substituted; R₅ = H, CR₈R₉R₁₀, CR₁₁R₁₂OR₁₃; R₈-12 = H, (substituted) alkyl, (substituted) cycloalkyl, (substituted) alkenyl, (substituted) alkynyl, (substituted) aryl; R₁₃ = alkyl, cycloalkyl, aryl; R₆, R₇ = halo, OH, (substituted) alkyl, (substituted) aryl, (substituted) aralkyl, (substituted) alkoxy, (substituted) acyl, (substituted) acyloxy; two of each R₂-4, R₈-10, and R₁₁-13 may form a ring; m, n = 0-3]. The material shows high sensitivity and improved resolving power and improved pattern profile because of no change of pattern shapes and sensitivity under exposure.

IT 246157-34-6 246157-36-8 246157-40-4
 246157-41-5 246157-45-9 246157-46-0
 (pos.-working photoresist containing acrylic hydroxystyrene polymer and acid-generating agent with improved resolving power and pattern profile)

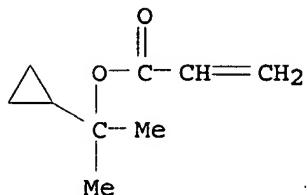
RN 246157-34-6 HCAPLUS

CN 2-Propenoic acid, 1-cyclopropyl-1-methylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 246157-33-5

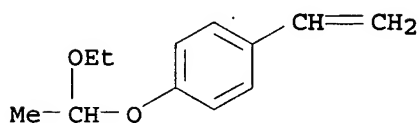
CMF C9 H14 O2



CM 2

CRN 157057-20-0

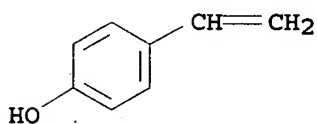
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



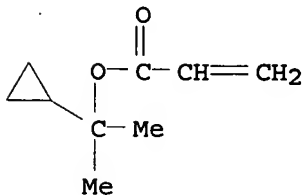
RN 246157-36-8 HCAPLUS

CN 2-Propenoic acid, 1-cyclopropyl-1-methylethyl ester, polymer with
1-ethenyl-4-[1-(2-methylpropoxy)ethoxy]benzene and 4-ethenylphenol
(9CI) (CA INDEX NAME)

CM 1

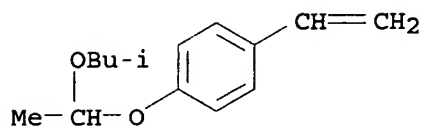
CRN 246157-33-5

CMF C9 H14 O2



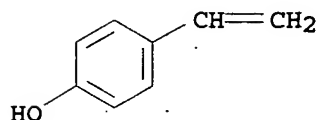
CM 2

CRN 192314-53-7
CMF C14 H20 O2



CM 3

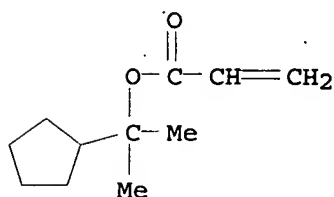
CRN 2628-17-3
CMF C8 H8 O



RN 246157-40-4 HCAPLUS
CN 2-Propenoic acid, 1-cyclopentyl-1-methylethyl ester, polymer with
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA
INDEX NAME)

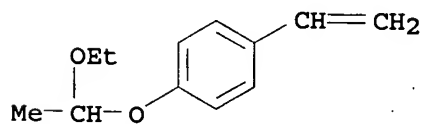
CM 1

CRN 246157-39-1
CMF C11 H18 O2



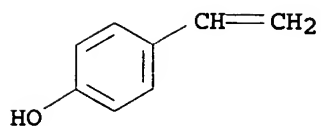
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CRN 157057-20-0
CMF C12 H16 O2



CM 3

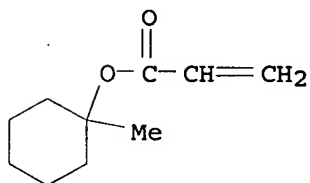
CRN 2628-17-3
CMF C8 H8 O



RN 246157-41-5 HCAPLUS
CN 2-Propenoic acid, 1-methylcyclohexyl ester, polymer with
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA
INDEX NAME)

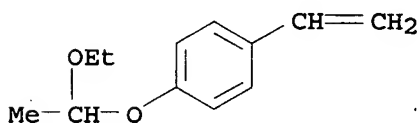
CM 1

CRN 178889-47-9
CMF C10 H16 O2



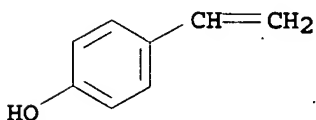
CM 2

CRN 157057-20-0
CMF C12 H16 O2



CM 3

CRN 2628-17-3
CMF C8 H8 O

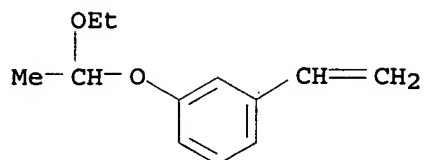


RN 246157-45-9 HCAPLUS
CN 2-Propenoic acid, 1-cyclopropyl-1-methylethyl ester, polymer with
1-ethenyl-3-(1-ethoxyethoxy)benzene and 3-ethenylphenol (9CI) (CA
INDEX NAME)

CM 1

CRN 246157-44-8

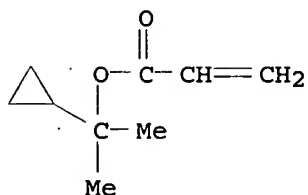
CMF C12 H16 O2



CM 2

CRN 246157-33-5

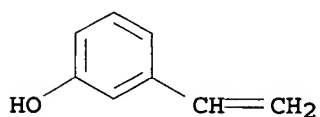
CMF C9 H14 O2



CM 3

CRN 620-18-8

CMF C8 H8 O



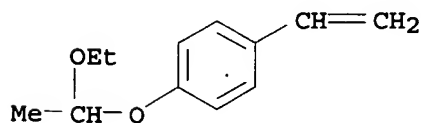
RN 246157-46-0 HCAPLUS

CN 2-Propenoic acid, 1,1-dimethyl-2-propenyl ester, polymer with
ethenylbenzene, 1-ethenyl-4-(1-ethoxyethoxy)benzene and
4-ethenylphenol (9CI) (CA INDEX NAME)

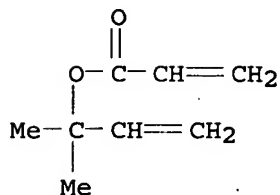
CM 1

CRN 157057-20-0

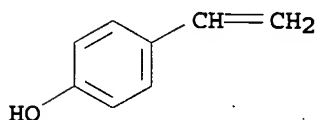
CMF C12 H16 O2



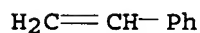
CM 2

CRN 120880-88-8
CMF C8 H12 O2

CM 3

CRN 2628-17-3
CMF C8 H8 O

CM 4

CRN 100-42-5
CMF C8 H8

IC ICM G03F007-039
ICS C08F220-18; C08K005-00; C08L025-18; C08L031-02; C08L101-00;
H01L021-027; C08F212-14

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38

IT 246157-34-6 246157-36-8 246157-38-0
246157-40-4 246157-41-5 246157-43-7
246157-45-9 246157-46-0
(pos.-working photoresist containing acrylic hydroxystyrene polymer and
acid-generating agent with improved resolving power and pattern
profile)

L18 ANSWER 57 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:175835 HCAPLUS
DOCUMENT NUMBER: 130:202924
TITLE: Radiation-sensitive resin composition
INVENTOR(S): Iwanaga, Shin-ichiro; Kobayashi, Eiichi; Tanabe,
Takayoshi; Kawaguchi, Kazuo
PATENT ASSIGNEE(S): JSR Corporation, Japan

SOURCE: Eur. Pat. Appl.; 20 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 901043	A1	19990310	EP 1998-115846	19980821
<--				
EP 901043	B1	20041027		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11143079	A	19990528	JP 1998-221190	19980805
<--				
JP 3991459	B2	20071017		
US 6120972	A	20000919	US 1998-136051	19980818
<--				
PRIORITY APPLN. INFO.:			JP 1997-251449	A 19970902
<--				

ED Entered STN: 17 Mar 1999

AB A radiation-sensitive resin composition comprises (A) a copolymer which comprises a repeating unit formed by cleavage of a carbon-carbon double bond of a monomer having one polymerizable carbon-carbon double bond and a repeating unit formed by cleavage of a carbon-carbon double bond of a monomer having two or more polymerizable carbon-carbon double bonds and at least one divalent group decomposed by an acid of the formula $-\text{CO}_2\text{C}(\text{R}_1)(\text{R}_2)-$ or $-\text{OCO}_2\text{C}(\text{R}_3)(\text{R}_4)-$ (R_1-4 = alkyl having 1-5 carbon atoms or aryl having 6-14 carbon atoms), said monomer having a structure in which each carbon-carbon double bond combines via said divalent group, and (B) a photoacid generator. The radiation-sensitive resin composition exhibits excellent sensitivity and resolution, reduced effect from the swing curves, excellent pattern profile, superior heat resistance, high sensitivity to UV rays, far UV rays, x-rays, and charged particles, and is useful as a chemical amplified pos. photoresist used in the manufacture of integrated circuit devices.

IT 220767-22-6, 2,5-Dimethyl-2,5-hexanediol diacrylate-p-hydroxystyrene-p-(1-ethoxyethoxy)styrene copolymer
 (chemical amplified pos. photoresists containing)

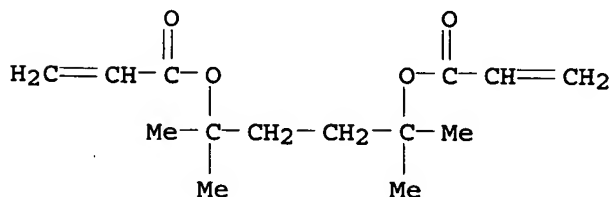
RN 220767-22-6 HCAPLUS

CN 2-Propenoic acid, 1,1,4,4-tetramethyl-1,4-butanediyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI)
 (CA INDEX NAME)

CM 1

CRN 188837-15-2

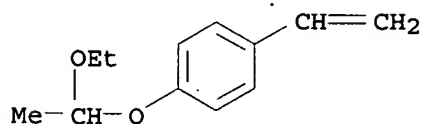
CMF C14 H22 O4



CM 2

CRN 157057-20-0

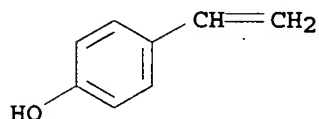
CMF C12 H16 O2



CM 3

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-004

ICS G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 220767-14-6, tert-Butyl acrylate-2,5-dimethyl-2,5-hexanediol diacrylate-p-isopropenylphenol-tricyclodecanyl acrylate copolymer
 220767-16-8, tert-Butyl acrylate-2,5-dimethyl-2,5-hexanediol diacrylate-p-isopropenylphenol-isobornyl acrylate copolymer
 220767-18-0, tert-Butyl acrylate-2,5-dimethyl-2,5-hexanediol diacrylate-p-hydroxystyrene-styrene copolymer 220767-20-4, 2,5-Dimethyl-2,5-hexanediol diacrylate-p-hydroxystyrene-p-tert-butoxystyrene copolymer 220767-22-6, 2,5-Dimethyl-2,5-hexanediol diacrylate-p-hydroxystyrene-p-(1-ethoxyethoxy)styrene copolymer 220767-24-8, 2,5-Dimethyl-2,5-hexanediol diacrylate-p-hydroxystyrene-p-(tert-butoxycarbonyloxy)styrene copolymer 220767-26-0, tert-Butyl acrylate-p-isopropenylphenol-tricyclodecanyl acrylate copolymer

(chemical amplified pos. photoresists containing)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT .

L18 ANSWER 58 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:72106 HCAPLUS

DOCUMENT NUMBER: 130:189411

TITLE: Radiation-sensitive photoresist comprising tertiary-butyl (meth)acrylate unit

INVENTOR(S): Kobayashi, Eiichi; Ikemura, Toshiaki; Tanabe, Takayoshi; Iwanaga, Shinichiro

PATENT ASSIGNEE(S): JSR Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11024273	A	19990129	JP 1997-187223	19970630
			<--	
PRIORITY APPLN. INFO.:			JP 1997-187223	19970630
			<--	

ED Entered STN: 03 Feb 1999

AB The photoresist, showing high resolution and broad focus-depth width, comprises a copolymer comprising (A) (α -methyl-)m-hydroxystyrene unit and (B) tert-Bu (meth)acrylate unit satisfying $B/(A + B)$ 5-50 mol% and a radiation-sensitive acid generator.

IT 220306-11-6P, tert-Butyl methacrylate-p-(1-ethoxyethoxy)styrene-m-hydroxystyrene copolymer (radiation-sensitive photoresist comprising hydroxystyrene and tertiary-Bu (meth)acrylate)

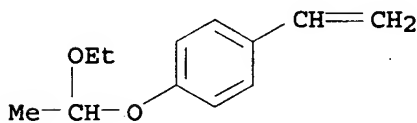
RN 220306-11-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 3-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

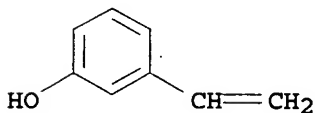
CMF C12 H16 O2



CM 2

CRN 620-18-8

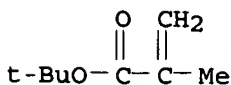
CMF C8 H8 O



CM 3

CRN 585-07-9

CMF C8 H14 O2



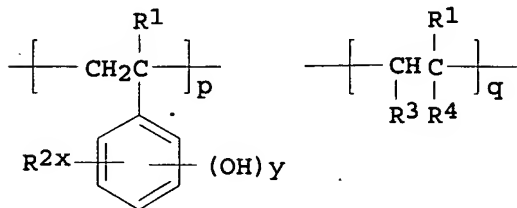
IC ICM G03F007-039
 ICS G03F007-004; G03F007-029; G03F007-033; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 220306-10-5P, m-Acetoxystyrene-tert-butyl acrylate copolymer
 220306-11-6P, tert-Butyl methacrylate-p-(1-ethoxyethoxy)styrene-m-hydroxystyrene copolymer 220306-12-7P, tert-Butyl acrylate-isobornyl acrylate-m-hydroxystyrene copolymer (radiation-sensitive photoresist comprising hydroxystyrene and tertiary-Bu (meth)acrylate)

L18 ANSWER 59 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:661194 HCAPLUS
 DOCUMENT NUMBER: 129:337638
 TITLE: Polymer for positive-working chemically amplified resist material
 INVENTOR(S): Honokai, Kiyoshi; Watanabe, Osamu; Watanabe, Satoshi; Nagura, Shigehiro; Ishihara, Toshinobu
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 78 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10265524	A	19981006	JP 1998-17972	19980114
			<--	
JP 3570477	B2	20040929		
TW 528932	B	20030421	TW 1998-87100572	19980116
			<--	
US 6156477	A	20001205	US 1998-13270	19980126
			<--	
PRIORITY APPLN. INFO.:			JP 1997-26026	A 19970124
			<--	

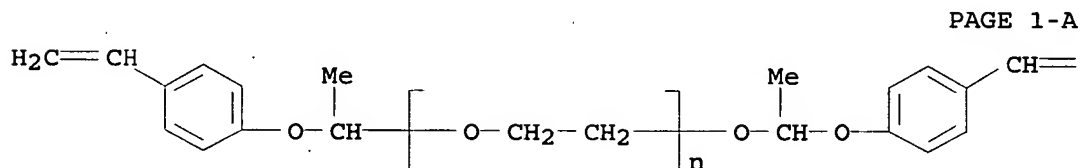
ED Entered STN: 20 Oct 1998
 GI



AB The polymer material has a repeating unit I (R2 = H, CH3; R2 = alkyl; R3 = H; R4 = ester; R3 and R4 forming COOCO; x + y ≤ 5; p + q = 1, 0 < q/(p+q) ≤ 0.9). The compound I has the phenolic hydrogens and/or hydrogens in carboxyl groups which are partially substituted with acid unstable group, and a -C-O-C- polymer-linking group formed by the reaction between the remaining phenolic hydroxy and/or carboxy

group with an alkenyl ether. The compound I has 0-80 % of the total amount of the acid unstable groups and polymer-liking groups based on the total of phenolic hydroxy and carboxylic groups, and 1,000-500,000 mol. weight. The resist material shows the excellent sensitivity, resolution, and plasma-etching resistance, and provides the excellent heat-resistant, little over-hung, and well size-controlled resist pattern.

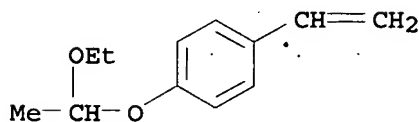
IT 215319-72-5P 215319-75-8P 215319-78-1P
 215319-85-0P 215319-93-0P 215319-94-1P
 215319-96-3P 215320-00-6P 215320-03-9P
 215320-05-1P 215320-08-4P 215320-09-5P
 (polymer for pos.-working chemical amplified resist material)
 RN 215319-72-5 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and
 α -[1-(4-ethenylphenoxy)ethyl]- ω -[1-(4-ethenylphenoxy)ethoxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)
 CM 1
 CRN 215319-71-4
 CMF (C2 H4 O)_n C20 H22 O3
 CCI PMS



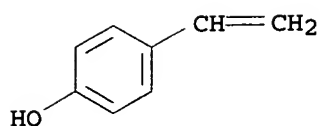
PAGE 1-B

=CH₂

CM 2
 CRN 157057-20-0
 CMF C12 H16 O2



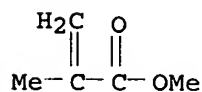
CM 3
 CRN 2628-17-3
 CMF C8 H8 O



CM 4

CRN 80-62-6

CMF C5 H8 O2



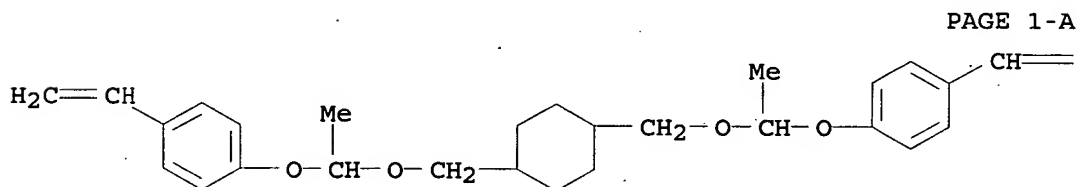
RN 215319-75-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 1,1'-[1,4-cyclohexanediylbis(methyleneoxyethylideneoxy)]bis[4-
 ethenylbenzene], 1,1-dimethylethyl 4-ethenylphenyl carbonate,
 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA
 INDEX NAME)

CM 1

CRN 215319-74-7

CMF C28 H36 O4



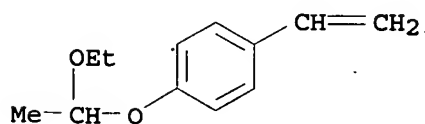
PAGE 1-B



CM 2

CRN 157057-20-0

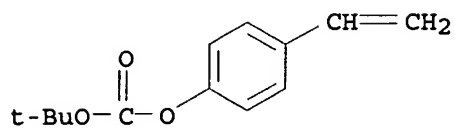
CMF C12 H16 O2



CM 3

CRN 87188-51-0

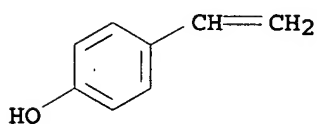
CMF C13 H16 O3



CM 4

CRN 2628-17-3

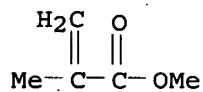
CMF C8 H8 O



CM 5

CRN 80-62-6

CMF C5 H8 O2



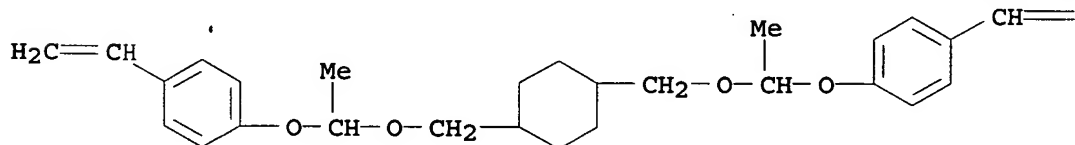
RN 215319-78-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
1,1'-[1,4-cyclohexanediylbis(methyleneoxyethylideneoxy)]bis[4-
ethenylbenzene], 1-ethenyl-4-(1-ethoxyethoxy)benzene and
4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 215319-74-7

CMF C28 H36 O4



PAGE 1-A

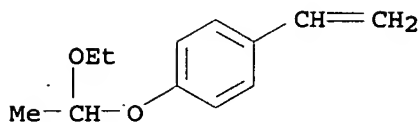
PAGE 1-B

 =CH_2

CM 2

CRN 157057-20-0

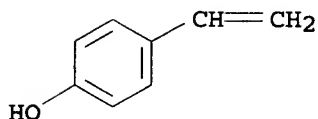
CMF C12 H16 O2



CM 3

CRN 2628-17-3

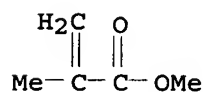
CMF C8 H8 O



CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 215319-85-0 HCAPLUS

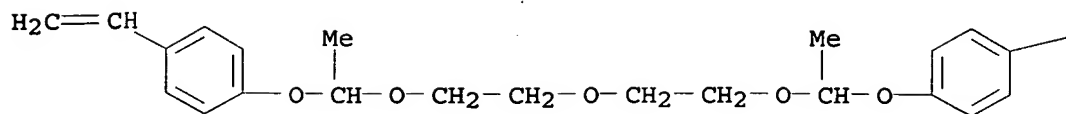
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and
 1,1'-[oxybis(2,1-ethanediyloxyethylideneoxy)]bis[4-ethenylbenzene]
 (9CI) (CA INDEX NAME)

CM 1

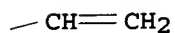
CRN 215319-84-9

CMF C24 H30 O5

PAGE 1-A



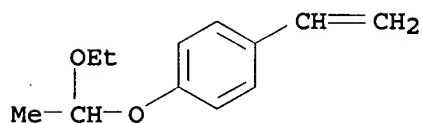
PAGE 1-B



CM 2

CRN 157057-20-0

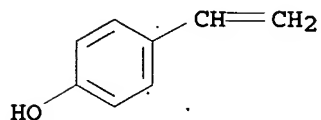
CMF C12 H16 O2



CM 3

CRN 2628-17-3

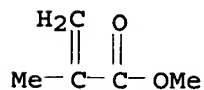
CMF C8 H8 O



CM 4

CRN 80-62-6

CMF C5 H8 O2

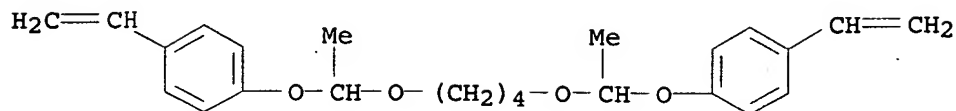


RN 215319-93-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 1,1'-[1,4-butanediylbis(oxyethylideneoxy)]bis[4-ethenylbenzene],
 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA
 INDEX NAME)

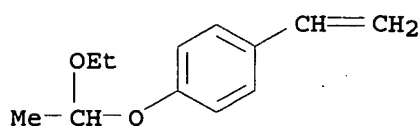
CM 1

CRN 215319-92-9
CMF C24 H30 O4



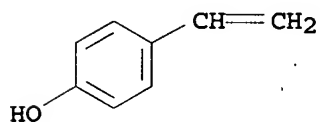
CM 2

CRN 157057-20-0
CMF C12 H16 O2



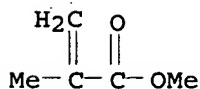
CM 3

CRN 2628-17-3
CMF C8 H8 O



CM 4

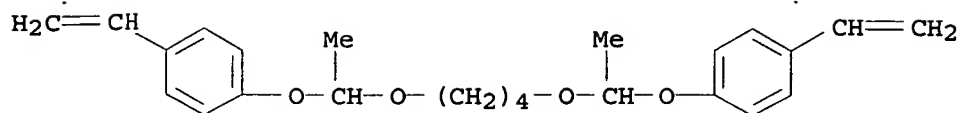
CRN 80-62-6
CMF C5 H8 O2



RN 215319-94-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
1,1'-[1,4-butanediylbis(oxyethylideneoxy)]bis[4-ethenylbenzene],
1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-
ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

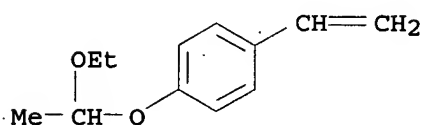
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CMF C24 H30 O4



CM 2

CRN 157057-20-0

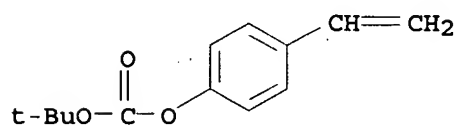
CMF C12 H16 O2



CM 3

CRN 87188-51-0

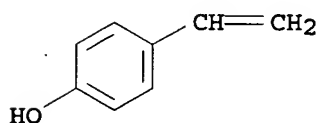
CMF C13 H16 O3



CM 4

CRN 2628-17-3

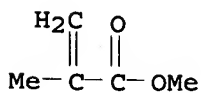
CMF C8 H8 O



CM 5

CRN 80-62-6

CMF C5 H8 O2



RN 215319-96-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
bis[2-[1-(4-ethenylphenoxy)ethoxy]ethyl] 1,4-phenylenebis[carbamate],

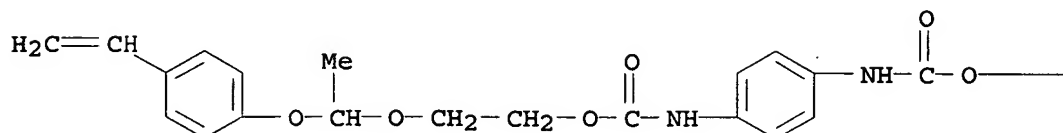
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME).

CM 1

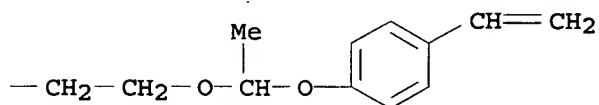
CRN 215319-95-2

CMF C32 H36 N2 O8

PAGE 1-A



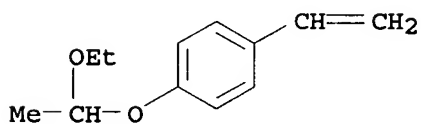
PAGE 1-B



CM 2

CRN 157057-20-0

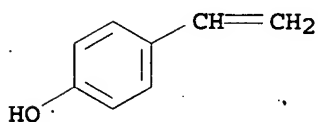
CMF C12 H16 O2



CM 3

CRN 2628-17-3

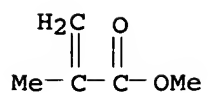
CMF C8 H8 O



CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 215320-00-6 HCAPLUS

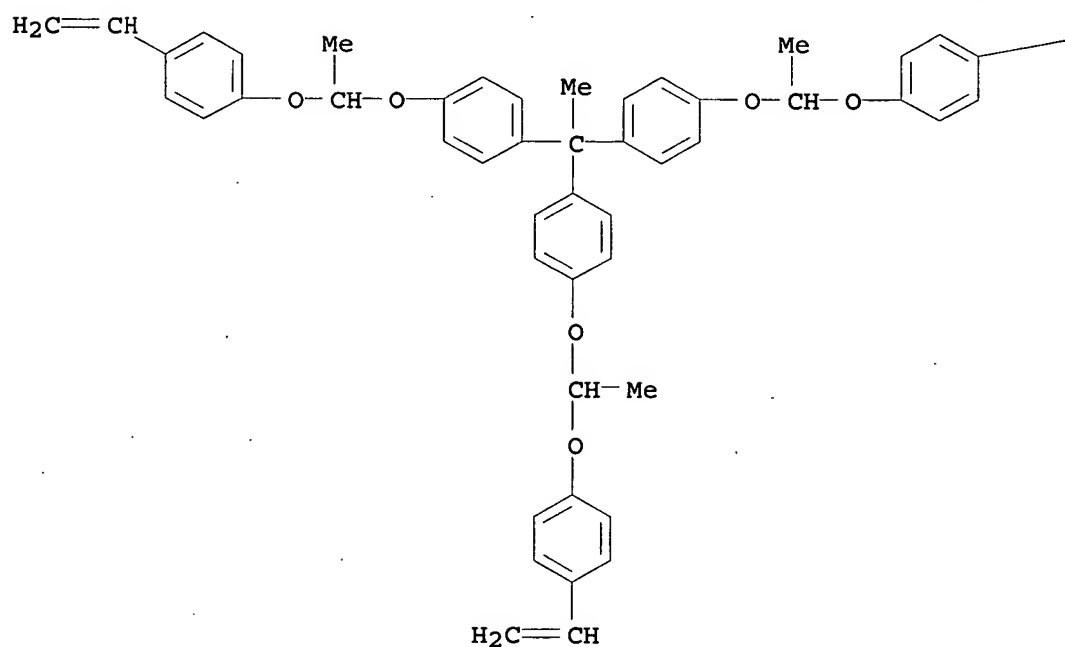
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxyethoxy)benzene, 4-ethenylphenol and 1,1',1''-ethylidynetris[4-[1-(4-ethenylphenoxy)ethoxy]benzene] (9CI) (CA INDEX NAME)

CM 1

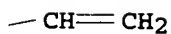
CRN 215319-99-6

CMF C50 H48 O6

PAGE 1-A



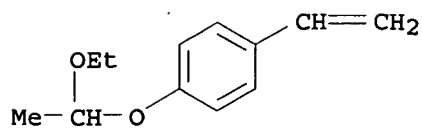
PAGE 1-B



CM 2

CRN 157057-20-0

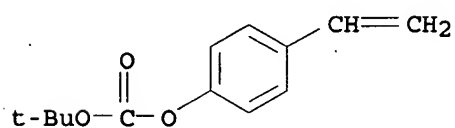
CMF C12 H16 O2



CM 3

CRN 87188-51-0

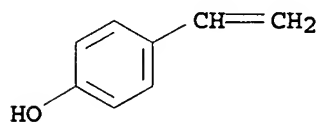
CMF C13 H16 O3



CM 4

CRN 2628-17-3

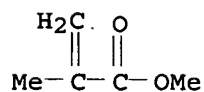
CMF C8 H8 O



CM 5

CRN 80-62-6

CMF C5 H8 O2



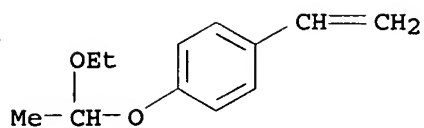
RN 215320-03-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA
INDEX NAME)

CM 1

CRN 157057-20-0

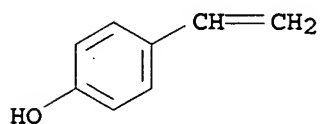
CMF C12 H16 O2



CM 2

CRN 2628-17-3

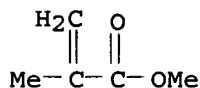
CMF C8 H8 O



CM 3

CRN 80-62-6

CMF C5 H8 O2



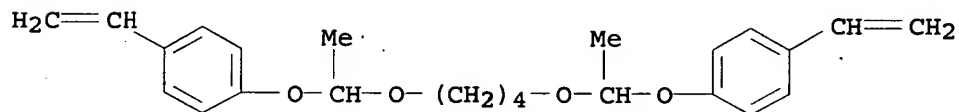
RN 215320-05-1 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 1,1'-[1,4-butanediylbis(oxyethylideneoxy)]bis[4-ethenylbenzene], 1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 215319-92-9

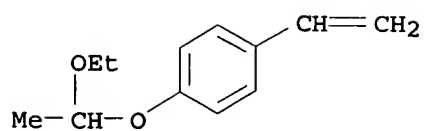
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CM 2

CRN 157057-20-0

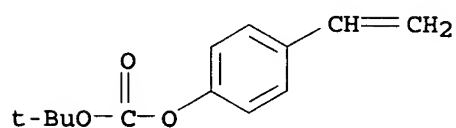
CMF C12 H16 O2



CM 3

CRN 87188-51-0

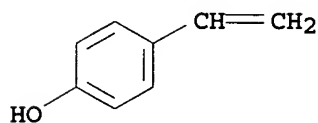
CMF C13 H16 O3



CM 4

CRN 2628-17-3

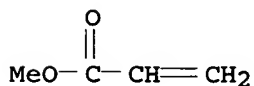
CMF C8 H8 O



CM 5

CRN 96-33-3

CMF C4 H6 O2



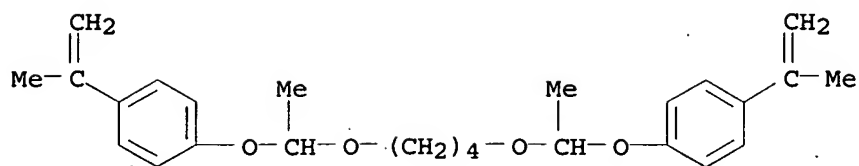
RN 215320-08-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1'-[1,4-butanediylbis(oxyethylideneoxy)]bis[4-ethenylbenzene], 1,1'-[1,4-butanediylbis(oxyethylideneoxy)]bis[4-(1-methylethenyl)benzene], 1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 215320-07-3

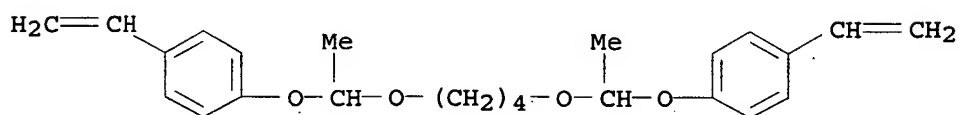
CMF C26 H34 O4



CM 2

CRN 215319-92-9

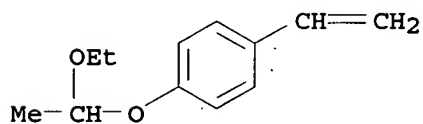
CMF C24 H30 O4



CM 3

CRN 157057-20-0

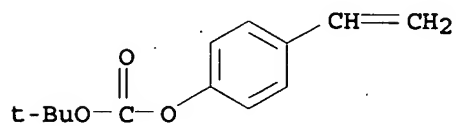
CMF C12 H16 O2



CM 4

CRN 87188-51-0

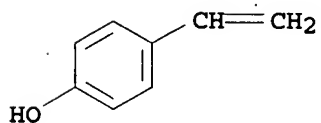
CMF C13 H16 O3



CM 5

CRN 2628-17-3

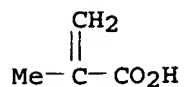
CMF C8 H8 O



CM 6

CRN 79-41-4

CMF C4 H6 O2



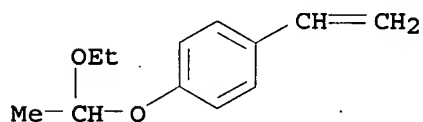
RN 215320-09-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
1,1-dimethylethyl 4-ethenylphenyl carbonate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol. (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

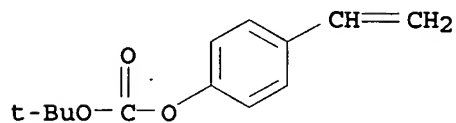
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CM 2

CRN 87188-51-0

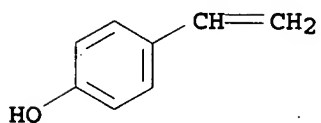
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CM 3

CRN 2628-17-3

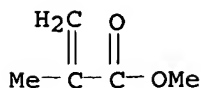
CMF C8 H8 O



CM 4

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08F012-24
 ICS C08F008-00; C08F020-06; C08F020-12; G03F007-039; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35
 IT 24979-71-3P, 4-Hydroxy styrene-methyl methacrylate copolymer
 24979-74-6P 110123-07-4P 215319-72-5P 215319-75-8P
 215319-78-1P 215319-81-6P 215319-85-0P
 215319-89-4P 215319-91-8P 215319-93-0P
 215319-94-1P 215319-96-3P 215320-00-6P
 215320-02-8P 215320-03-9P 215320-04-0P
 215320-05-1P 215320-06-2P 215320-08-4P
 215320-09-5P 215320-10-8P
 (polymer for pos.-working chemical amplified resist material)

L18 ANSWER 60 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:344424 HCAPLUS
 DOCUMENT NUMBER: 129:21478
 TITLE: Radiation-sensitive resin composition
 INVENTOR(S): Tanabe, Takayoshi; Kobayashi, Eiichi; Shimizu, Makoto; Iwanaga, Shin-ichiro
 PATENT ASSIGNEE(S): Japan Synthetic Rubber Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 843220	A1	19980520	EP 1997-120011	19971114
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EP 843220	B1	20030219		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10142800	A	19980529	JP 1996-316888	19961114
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JP 3695024	B2	20050914		
US 5994022	A	19991130	US 1997-965432	19971106
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PRIORITY APPLN. INFO.:			JP 1996-316888	A 19961114
<--				

ED Entered STN: 10 Jun 1998

AB A radiation-sensitive resin composition useful as a chemical amplified pos. tone resist is provided. The composition comprises (A) a copolymer which becomes soluble in an alkali developing solution by the action of an acid, the copolymer containing a recurring unit having a structure which is decomposed by the action of an acid and increases the solubility in an alkaline developing solution and a recurring unit obtained from a compound having at least two (meth)acryloyl groups in the mol. by the cleavage of the carbon-carbon double bond and (B) a photoacid generator which produces

an acid on being irradiated by a radiation. The composition exhibits high resolution, superb capability of producing superior pattern forms, and excellent resistance to PED, and high process stability, is affected by a standing wave only to a min. extent, and possesses prominent heat resistance.

IT 207747-91-9

(pos. chemical amplified photoresists containing)

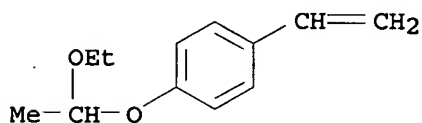
RN 207747-91-9 HCAPLUS

CN 2-Propenoic acid, (octahydro-4,7-methano-1H-indene-5,?-diyl)bis(methylene) ester, polymer with 1,1-dimethylethyl 2-propenoate, 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 157057-20-0

CMF C12 H16 O2

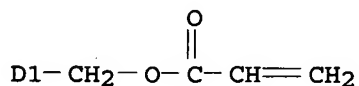
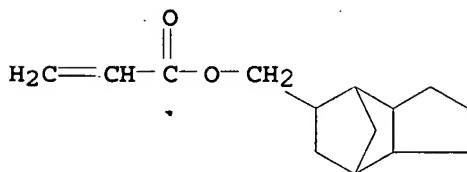


CM 2

CRN 42594-17-2

CMF C18 H24 O4

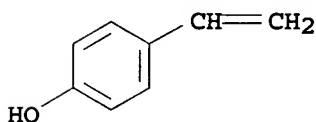
CCI IDS



CM 3

CRN 2628-17-3

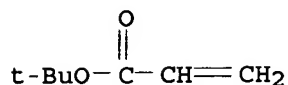
CMF C8 H8 O



CM 4

CRN 1663-39-4

CMF C7 H12 O2



IC ICM G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 207747-87-3 207747-88-4 207747-89-5 207747-90-8

207747-91-9 207747-92-0

(pos. chemical amplified photoresists containing)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L18 ANSWER 61 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:553940 HCAPLUS

DOCUMENT NUMBER: 127:227437

TITLE: Polymer and resist material

INVENTOR(S): Urano, Fumiyoshi; Fujie, Hirotooshi; Oono, Keiji

PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

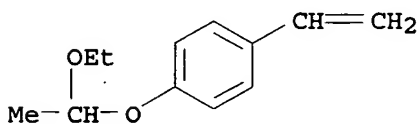
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

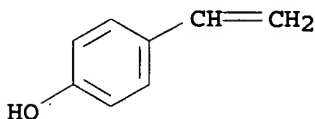
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 789279	A1	19970813	EP 1996-309141	19961213
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EP 789279	B1	20010321		
EP 789279	B2	20041208		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 199985	T	20010415	AT 1996-309141	19961213
			<--	
US 6033826	A	20000307	US 1996-769530	19961219
			<--	
CN 1159453	A	19970917	CN 1996-123157	19961220
			<--	
CN 1145078	B	20040407		
TW 440744	B	20010616	TW 1996-85115781	19961220
			<--	
JP 10053621	A	19980224	JP 1997-35572	19970204
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JP 3724098	B2	20051207		
PRIORITY APPLN. INFO.:			JP 1996-47955	A 19960209
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			JP 1996-168387	A 19960607
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OTHER SOURCE(S): MARPAT 127:227437

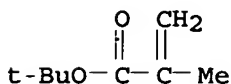
ED Entered STN: 30 Aug 1997
 AB A copolymer of hydroxystyrene containing an acetal or ketal group which can easily be eliminated in the presence of an acid in the mol. and having a very narrow mol. weight distribution gives a resist material suitable for forming ultrafine patterns excellent in resolution, heat resistance, mask linearity, and other properties without causing problems of delay time and the like.
 IT 194996-88-8P
 (preparation and use in resist materials)
 RN 194996-88-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)
 CM 1
 CRN 157057-20-0
 CMF C12 H16 O2



CM 2
 CRN 2628-17-3
 CMF C8 H8 O



CM 3
 CRN 585-07-9
 CMF C8 H14 O2



IC ICM G03F007-039
 ICS G03F007-004; C08F212-14; C08F012-14; C08F112-14
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 123589-22-0P, p-tert-Butoxystyrene-p-hydroxystyrene copolymer
 125325-82-8P 129674-22-2P, p-tert-Butoxycarbonyloxystyrene-p-hydroxystyrene copolymer 158593-28-3P, p-1-Ethoxyethoxystyrene-p-hydroxystyrene copolymer 159377-76-1P 171429-60-0P 193214-59-4P, p-Hydroxystyrene-p-1-methoxyethoxystyrene copolymer 194996-87-7P

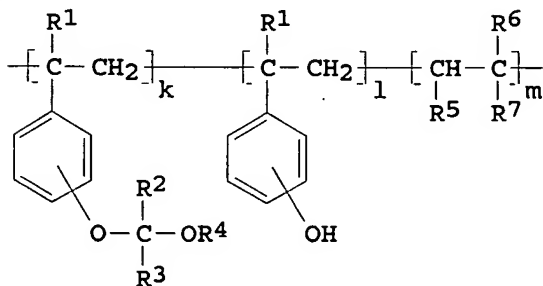
194996-88-8P 194996-89-9P 194996-90-2P
(preparation and use in resist materials)

L18 ANSWER 62 OF 62 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:613995 HCAPLUS
DOCUMENT NUMBER: 119:213995
TITLE: Positive-working photoresist composition
INVENTOR(S): Urano, Fumiyoshi; Fujie, Hirotooshi; Oono, Keiji;
Negishi, Takaaki
PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 43 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 520642	A1	19921230	EP 1992-305260	19920609
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EP 520642	B1	19981028		
R: DE, FR, GB				
JP 05249682	A	19930928	JP 1992-173830	19920608
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JP 3030672	B2	20000410		
JP 09204046	A	19970805	JP 1996-302560	19920608
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JP 11286523	A	19991019	JP 1998-331953	19920608
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US 5468589	A	19951121	US 1992-898265	19920615
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US 5670299	A	19970923	US 1995-477612	19950607
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			JP 1991-274829	A 19910926
			<--	
			JP 1992-173830	A3 19920608
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			JP 1996-302560	A3 19920608
			<--	
			US 1992-898265	A3 19920615
			<--	

OTHER SOURCE(S): MARPAT 119:213995
ED Entered STN: 13 Nov 1993
GI



I

AB A photoresist composition having high sensitivity, excellent heat resistance, and good adhesion to substrate and providing high-resolution resist patterns comprise a polymer having the repeating units of the formula I ($R_1 = H$ or Me; $R_2, R_3 = H$ or alkyl having 1-6 C atoms provided that R_2 and R_3 can not be H at the same time and R_2 and R_3 together may form a methylene chain having 2-5 C atoms; $R_4 =$ alkyl having 1-10 C atoms, haloalkyl having 1-6 C atoms, or aralkyl; $R_5 = H$ or CN; $R_6 = H$ or Me; $R_7 = H, CN,$ or CO_2Y ; $Y =$ alkyl having 2-6 C atoms; R_5 and R_7 may together form a CO_2CO group; $k, l =$ a natural number with $0.1 \leq k/(k + l) \leq 0.9$; $m = 0$ or a natural number and when $m =$ a natural number, $0.05 \leq m/(k + l + m) \leq 0.50$), a photosensitive compound which generates an acid upon exposure to light, and a solvent capable of dissolving the polymer and the photosensitive compound

IT 194996-88-8P

(preparation and reaction of, in preparing styrene derivative copolymers for deep-UV pos. photoresist comps.)

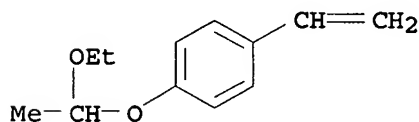
RN 194996-88-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-ethenyl-4-(1-ethoxyethoxy)benzene and 4-ethenylphenol (CA INDEX NAME)

CM 1

CRN 157057-20-0

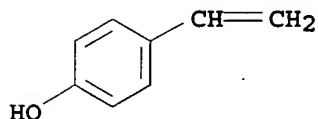
CMF C12 H16 O2



CM 2

CRN 2628-17-3

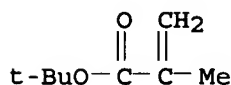
CMF C8 H8 O



CM 3

CRN 585-07-9

CMF C8 H14 O2



IC ICM G03F007-039
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
IT 24979-70-2P, Poly(p-hydroxystyrene) 39255-23-7P 90875-14-2P
150746-86-4P 150746-91-1P 157057-20-0P 194996-88-8P
(preparation and reaction of, in preparing styrene derivative copolymers for
deep-UV pos. photoresist compns.)

=> d his nofile

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FILE 'HCAPLUS' ENTERED AT 14:32:13 ON 29 FEB 2008

L1 1 SEA ABB=ON PLU=ON US20070099107/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 14:32:29 ON 29 FEB 2008

L2 12 SEA ABB=ON PLU=ON (102-71-6/BI OR 1344-28-1/BI OR
138529-84-7/BI OR 158593-28-3/BI OR 200808-68-0/BI OR
66003-78-9/BI OR 69-72-7/BI OR 7439-89-6/BI OR 7440-02-0/BI
OR 7440-25-7/BI OR 7440-48-4/BI OR 84540-57-8/BI)
L3 STR
L4 STR L3
L5 STR
L6 0 SEA SSS SAM L3 AND L4 AND L5
L7 50 SEA SSS SAM L3 AND L5
L8 SCR 2043
L9 28 SEA SSS SAM L3 AND L5 AND L8
L10 8 SEA SSS SAM L3 AND L4 AND L8
L11 STR L4
L12 1 SEA SSS SAM L3 AND L11
L13 234 SEA SSS FUL L3 AND L11
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